UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

JAN 27 2020

REPLY TO THE ATTENTION OF
ECW-15J

**CERTIFIED MAIL** 7019 0140 0000 0722 2430
**RETURN RECEIPT REQUESTED**

Meadowlark Dairy, LLC
Attention: Ex. 6. (Personal Privacy)
FOIA Ex. 6 (Personal Privacy)
DePere, Wisconsin 54115

Subject: Compliance Evaluation Inspection

Dear Ex. 6. (Personal Privacy):

On November 21, 2019 U.S. Environmental Protection Agency conducted an inspection of your facility, Meadowlark Dairy, LLC in DePere, Wisconsin. The purpose of the inspection was to evaluate compliance with the Clean Water Act, as amended and your Wisconsin Pollutant Discharge Elimination System permit WI-0061905-04-0. Enclosed is a copy of EPA's inspection report.

EPA observed the following areas of concern during the November 21, 2019 inspection:

1. EPA observed track-in/track-out which contained used feed, manure, and used bedding on the concrete apron on the east and south side of the Small Freestall Barn and the Bedpack Barn. EPA observed stormwater coming into contact with track-in/track-out and it was flowing off the concrete apron to the vegetated area between the Large and Small Freestall Barns. The vegetated are is sloped toward the culvert inlet. The culvert inlet is connected to underground piping that conveys flow to a culvert outlet into the West Stormwater Ditch. The West Stormwater Ditch conveys the flow by gravity to the unnamed tributary of the Fox River.
2. EPA observed a mortality that was being stored on the southeast side of the Small Freestall Barn and at the time of inspection being exposed to stormwater. The stormwater that came into contact with the mortality was observed flowing into the vegetated area betweeen the Small and Large Freestall Barns which flows into the culvert inlet between the Small and Large Freestall Barns.
3. Pit 4 was close to the MOL.
4. Pit 4 may have run-on occurring, which would limit the capacity of Pit 4.
5. In Pit 1, the berm may have erosional issues from solids removal.

Please provide an explanation by e-mail within 30 calendar days of receipt of this report on how the areas of concern listed above have been or will be addressed.

If you have questions or concerns regarding this letter, or the inspection report, please contact Cheryl Burdett at 312-886-1463 or burdett.cheryl@epa.gov.

Sincerely,

Ryan Bahr, Chief, Section 2
Water Enforcement and Compliance Assurance Branch

Enclosure

cc. Joseph Baeten, WDNR
MaryAnne Lowndes, WDNR
Benjamin Uvaas, WDNR

**CWA COMPLIANCE EVALUATION INSPECTION REPORT**
**U.S. ENVIRONMENTAL PROTECTION AGENCY, REGION 5**

**Purpose:**
Compliance Evaluation Inspection

**Facility:**
Meadowlark Dairy, LLC
FOIA Ex. 6 (Personal Privacy)
De Pere, Wisconsin 54115
FOIA Ex. 6 (Personal Privacy)

**NPDES Permit Number:** WI-0061905-04-0

**Date of Inspection:** November 21, 2019

**EPA Representatives:**
Cheryl Burdett
CAFO Program Manager
312-886-1463
Burdett.cheryl@epa.gov

John "Jack" Bajor, Jr.
Environmental Engineer
312-353-4633
Bajor.john@epa.gov

**State Representatives:**
None

**Facility Representatives:**
Ex. 6. (Personal Privacy) – Member of Meadowlark Dairy, LLC
Ex. 6 (Personal Privacy) or Ex. 6 (Personal Privacy)
Cell – Ex. 6. (Personal Privacy) or Office – 920-532-5572
Ex. 6. (Personal Privacy) – Member of Meadowlark Dairy, LLC
Ex. 6. (Personal Privacy) – Member of Meadowlark Dairy, LLC

**Inspector Signature** _____

**Approver Name and Title:** Ryan J. Bahr, Section 2 Chief, Water Enforcement and Compliance Assurance Branch

**Approver Signature:** _____

**Approval Date:** 1/27/2020

## 1. BACKGROUND

The purpose of this report is to describe, evaluate and document Meadowlark Dairy, LLC's compliance with the Clean Water Act (CWA) at its De Pere, Wisconsin facility on November 21, 2019. This inspection was performed pursuant to Section 308(a) of the Federal Water Pollution Control Act, as amended.

Meadowlark Dairy, LLC is a large dairy operation that confines 1225 mature milking and dry cows. 40 C.F.R (code of federal regulations) § 122.23(b)(4), defines a large concentrated animal feeding operation as an animal feeding operation that stables or confines as many or more than 700 mature milking or dry mature dairy cows. Meadowlark Dairy, LLC has a Wisconsin Pollutant Discharge Elimination System permit (WPDES) WI-0061905.

The Meadowlark Dairy, LLC's facility is comprised of a North Site and South Site seperated by Meadowlark Road. There is an unnamed tributary located at the northern end of the North Site. The unnamed tributary on the north side of the North Site flows west approximately 1 mile to the Fox River. The Fox River is a traditional navigable waterway and is impaired for nutrients.

## 2. SITE INSPECTION

**Table 1: Site Entry and Opening Conference**

| | |
|---|---|
| **Arrival Time:** | EPA arrived at Meadowlark Dairy, LLC at approximately 10:20 a.m. on November 21, 2019. |
| **Temperature:** | The air temperature at Meadowlark Dairy, LLC was approximately 45 degrees Fahrenheit and it was raining. |
| **Precipitation:** | According to Ex. 6. and Ex. 6. (Personal Privacy) Ex. 6., Meadowlark Dairy, LLC received approximately 1.1 inches of rain by midnight on November 20, 2019. |
| **Presented credentials?** | Yes. |
| **Credentials presented to whom and at what time?** | EPA Representatives presented credentials to Ex. 6. (Personal Privacy) and Ex. 6. Ex. 6. (Personal Privacy) at approximately 10:20 a.m. and to Ex. 6. (Personal Privacy) Ex. 6. at 1:00 p.m. |
| **Was an opening conference held? With whom?** Yes, EPA presented credentials to Ex. 6. (Personal Privacy) and explained the purpose of EPA's inspection was to document compliance with the Clean Water Act and its WPDES Permit WI-0061905-04-0. Ex. 6. Ex. 6. informed EPA that he is only an employee of Meadowlark Dairy, LLC and could not provide EPA access to the facility. EPA asked if Ex. 6. (Personal Privacy) could contact | |

| | |
|---|---|
| someone that could grant EPA access to conduct an inspection. Ex. 6. (Personal Privacy) went into the Milk Parlor and let Ex. 6. (Personal Privacy) know that EPA was outside and would like to speak with him.<br><br>Ex. 6. (Personal Privacy) came out of the Milk Parlor and EPA presented credentials and explained that the purpose of the inspection was to conduct a walk-through of the production area and a review of the facility's Nutrient Management Plan and documents required by the facility's permit to determine compliance with the Clean Water Act and compliance with its WPDES Permit WI-0061905-04-0. The inspection would include taking photographs and if necessary, collecting samples. Ex. 6. (Personal Privacy) Ex. 6. (Personal Privacy) consented to the inspection. | |
| **If photographs or documents were taken, does the facility consider any to be Confidential Business Information (CBI)?** | No |
| **Which information does the facility consider to be CBI?** | Not applicable |
| **EPA vehicle parked in approved location?** | Yes, Ex. 6. (Personal Privacy), employee of Meadowlark Dairy, LLC approved the location of where EPA parked their vehicle. |
| **Location where EPA vehicle was parked?** | EPA parked the government vehicle across from the Milk Parlor on the north side of the parking lot at the direction of Ex. 6. (Personal Privacy). |
| **Disposable boots worn?** | Yes. |
| **Other bio-security measures taken (state vet contacted, etc.):** | EPA e-mailed the State Veterinarian prior to the inspection. The State Veterinarian replied back by e-mail on 11/20/2019 stating, "I'm not aware of any disease outbreaks or other animal health concerns around Brown County". |

**2.1 Records Review (The following Records Review tables reflect information provided after the walk-through of the facility.)**

**Table 2: Documents**

| **Checklist(s) Used** |
|---|
| R5 CAFO Inspection Checklist |
| **Facility Documents Reviewed:** |
| Comprehensive Nutrient Management Plan |

**Table 3: Facility Description**

| Type of Animal | Number of Animals | Capacity | Type of Confinement |
|---|---|---|---|
| Dairy/Dry Mature Cows | 1225 | 1170 | Freestall Barns. |
| Heifers (4 months – 2 years) | 1000 | 1245 | Heifer Barn. |
| Calves (2-4 months) | <115 | 126 | Calf Barn. |
| **Minimum Number of Animals in previous 5 years:** | | | In the last 5 years, the animal numbers have remained consistent at Meadowlark Dairy, LLC with 1025 milking and 200 dry. |
| **Maximum Number of Animals in previous 5 years:** | | | Meadowlark Dairy, LLC is currently at its maximum number, which is 1225 milking and dry cows. |
| **Number of Animals that are stabled/confined and/or fed/maintained for 45 days or more in previous 12 months:** | | | 1225 Mature Milking and Dry Cows. |
| **Amount of Liquid Manure Generated per year:** | | | In 2018, 18,000,000 gallons of liquid manure was generated by Meadowlark Dairy, LLC, according to its NMP. |
| **Amount of Solid Manure Generated per year:** | | | In 2018, 900 tons of solid manure was generated by Meadowlark Dairy, LLC, according to its NMP. |
| **Does the facility have an NPDES Permit?** | | | Yes, Meadowlark Dairy, LLC WPDES Permit WI-0061905-04-0. |
| **SIC or NAICS code:** | | | 0221 |
| **CAFO Designation/Defined Reason (If a designated CAFO)** | | | The facility is defined as a large CAFO based on its stabling or confining as many or more than 700 mature milking or dry mature dairy cows. |
| **Do animals have direct access to WOUS?** | | | No. |
| **Are crops, vegetation, forage growth, or post-harvest residues sustained in the normal growing season over any portion of the lot or facility where animals are kept?** | | | No. |

| | |
|---|---|
| **What is the area (acres) of the production area?** | Meadowlark Dairy, LLC's production area includes a North and South Site for a total of 41.924 acres, according to its NMP. |
| **What is the area (acres) of the pasture?** | No pasture. |
| **How many employees (not counting family members)?** | Meadowlark Dairy, LLC has 22 non-family employees. |
| **Other facilities under common ownership (name and address):** No. | |
| According to Ex. 6. (Personal Privacy) , there are no other facilities under common ownership by Meadowlark Dairy, LLC. | |

**Table 4: Livestock Waste Storage**

| Type of Storage | Storage Capacity | Date of Construction | Type of Liner | Depth Markers Present | Last Time Waste was Removed | Amount of Waste Removed | Days of Storage |
|---|---|---|---|---|---|---|---|
| Pit 1 | 16 million gallons | 1999 | Clay Liner | Safety Marker and MOL Marker | 7/13/2019 8/25/2019 | 959,274 gallons | Not available |
| Concrete Pad | Short Term Storage | Information Not Collected | Concrete | Not Applicable | 6/22/2019 | Not available | Not available |
| Pit 2 | 1.4 million gallons | Information Not Collected | Clay Liner | Safety Marker and MOL marker | Not available | Not available | Not available |
| Pit 4 | 6.5 million gallons | Information Not Collected | Clay Liner | Depth Markers, MOL Markers | Not available | Not available | Not available |
| Calf Barn Pit | Information Not Provided | Information Not Collected | Concrete | None | Daily | Not available | Not available |
| Heifer Barn Pit | Information Not Provided | Information Not Collected | Concrete | None | Daily | Not available | Not available |

| | |
|---|---|
| **Records at site of storage structure design?** | Ex. 6 (Personal Privacy) were not able to provide the design plans at the time of the inspection. |
| **Is manure stored for the short term? If yes, describe where it is stored, how it is drained and where it drains to.** | Yes, solids are stored on the concrete storage pad on the east side of Pit 1. |

| | |
|---|---|
| **Are records kept of the level of manure in the storage structures?** | Yes. Ex. 6. (Personal Privacy) stated that they manually measure the levels within Pits 1, 2, and 4. |
| **When was the last time a storage structure was emptied, either partially or completely?** | Pit 1 was partially emptied on July 13, 2019 and August 25, 2019. |
| **What amount of manure or process wastewater was removed the last time the storage structure was emptied, either partially or completely?** | Pit 1 had liquids removed on July 13, 2019 and 8/25/2019 removed 959,274 gallons. |
| **Do the facility personnel inspect and keep records of all diversion devices?** | Yes. Ex. 6. (Personal Privacy) [redacted] stated that they use a calendar to record the daily and weekly inspections. They showed EPA a copy of the calendar and where they record that inspections that have been conducted. |
| **Do the facility personnel inspect and keep records of all impoundments?** | They do weekly checks and initial off that inspections were done. However, at the time of inspection the earthen storage structures had woody vegetation growing on the inner berms of the Pit 1, 2, and 4. |
| **Do the facility personnel inspect and keep records of all the water lines?** | Yes. Ex. 6. (Personal Privacy) [redacted] showed EPA the calendar with their initials documenting that daily inspection were completed. |
| **Do the facility personnel perform routine visual inspections and keep records of the production area?** | Yes. |
| **Does the waste storage system have a managed outfall or discharge point?<br>If yes, provide a description of the outfall and a description of the area receiving the discharge.** | The storage structures do not have managed outfalls. |
| **Has the facility had any documented discharges of livestock waste to surface water in the past year?** | Yes. Meadowlark Dairy, LLC had a discharge, approximately 3-4 years ago, during a land application event, Meadowlark Dairy, LLC injected manure and it leached to a ditch that flowed north to a ravine. According to Ex. 6. (Personal Privacy), WDNR was notified of the land application discharge. |

| | |
|---|---|
| **Are there safety devices installed around any manure storage ponds? (Barriers at the end of manure push off platforms, fences around pond, signage.)** | Yes. There is a fence around the Pits. |
| **Additional Information:** | None. |

**Table 5: Livestock Waste Management**

| | |
|---|---|
| **Describe the way manure is collected and disposed of at the facility:** | |
| Freestall barns have automatic scrapers that push used bedding, manure, and spill water into the center transfer pit. The center transfer pit flows by gravity to Pit 1.<br><br>The Calf Barn is pumped out into a truck and either land applied or taken to Pit 1. The Heifer Barn has a pit that has storage and is pumped to Pit 4. | |
| **Describe the way used bedding is collected and disposed of at the facility:** | |
| Used bedding is scraped with the manure in the Large and Small Freestall Barns where it flows by gravity to the east into Pit 1 and is land applied with the manure. | |
| **Are mortality records kept?** | Yes. |
| **Describe the way mortalities are managed at the facility:** | |
| Mortalities are stored on-site until the rendering facility, O.J. Krull & Sons, can come and pick them up. At the time of inspection, a mortality was stored outside the southeast door of the Small Freestall Barn where the bedpack area is located in that barn. This vegetated area between the Small and Large Freestall Barns has a culvert inlet to collect stormwater between the buildings. This location allows for stormwater to come into contact with mortalities and the potential for flow to get into the culvert inlet that flows to the west side of Meadowlark Dairy, LLC's South Site to a crop field and the West Stormwater Ditch. The West Stormwater Ditch flows north and flows into the unnamed tributary of the Fox River. | |
| **What type of method is used to provide drinking water for the animals?** | The plate cooler water is used for drinking water for the cows. |
| **Describe the way spilled drinking water is collected and disposed of at the facility:** | |
| The spilled drinking water is collected with the manure in all the barns. | |
| **Describe the way mist cooling water is collected and disposed of at the facility:** | |
| Meadowlark Dairy, LLC does not have mist cooling. | |
| **Describe how chemicals are stored and how used or spilled chemicals are collected and disposed of at the facility:** | |
| The chemicals are stored in a room in the same building as the Milk Parlor. There is a drain in the room that if the chemicals had a leak or spill would flow into the Pit 1. | |
| **Describe the way water that has been used to wash/flush barns is collected and disposed of at the facility:** | |

| |
|---|
| The water goes into Pit 1 for the Large and Small Freestall Barn. The Calf Barn and Heifer Barn is pumped into Pit 4. |
| **Describe where water comes from that is used to clean and/or flush. (Wells, city, etc.)** |
| The water comes from re-using the plate cooler water. |
| **Describe the way feed is contained and how runoff from feed is collected and disposed of at the facility:** |
| The feed for the cows is stored on the North Site in bunkers and a Commodity Shed for the high-moisture grains. The leachate from the silage and the process wastewater from the North Site flows to the west into the process wastewater channel that flows into the Collection Pit. There is a culvert in the Collection Pit that is connected to underground piping along the west side of the Silage Bunkers. The process wastewater flows by gravity through the underground piping to the Concrete Channel on the southside of the Vegetated Treatment Area (VTA). The process wastewater flows out of the Concrete Channel into VTA where it flows by gravity toward a pump. The pump is designed to collect the first flush of the process wastewater, which is pumped to Pit 2. The process wastewater that bypasses the pump flows within the VTA where it spreads out and is intended to be taken up as nutrients by the vegetation and soil matrix as it infiltrates. |
| **If a dairy, describe how process wastewater from the plate cooler water is collected and disposed of at the facility:** |
| The plate cooler water is collected in tanks and is reused as drinking water for the cows and the cleaning of the Milk Parlor. |
| **If a dairy, describe how process wastewater from the cleaning of the milking parlor is collected and disposed of at the facility:** |
| The process wastewater from the cleaning of the Milk Parlor is collected in Pit 1. |
| **If a dairy, describe how process wastewater from the cleaning of the milk tanks is disposed of at the facility:** |
| The clean out of the milk tanks is pumped to Pit 1. |

| | |
|---|---|
| **If a dairy, how many times per day are cows milked?** | Three times per day. The facility is working on four time per day. |

**Table 6: Land Application and Disposal of Manure and Process Wastewater**

| | |
|---|---|
| **Does the facility perform and keep records of the manure testing?** | Yes. Records are kept in 3-ring binders for each Pit1, 2, and 4. |
| **When was the last time a sample was taken of the manure and/or process wastewater?** | Samples were collected from Pit 1 on July 13, 2018 and August 25, 2018. Solid |

| | |
|---|---|
| | samples were last taken on 6/22/2019. |
| **Describe the process to take the manure and/or process wastewater sample.** | It is collected while being pumped from the Pits. Two separate samples are collected to be analyzed. Results from these two samples are then averaged. |
| **Number of acres available for land application:** | 2716.2 spreadable acres. |
| **Are land application records kept?** | Yes. Records are kept. |
| **Who applies the manure and process wastewater to the fields?** | Phil's Pumping and Fabrication, Inc. |
| **Are weather conditions at time of application kept? (24 before – 24 after)** | Not for the 24 before – 24 after, but prior to application weather conditions are recorded. |
| **Does the facility perform and keep records of the soil testing?** | Yes. Meadowlark Dairy, LLC had soil test records on-site. |
| **Is manure transferred off-site to another party?** | No manure was distributed. |
| **Are manure transfer records maintained?** | Not applicable. |
| **Do facility personnel perform periodic inspection of land application equipment?** | This is done by a contracted company. |

**Table 7: Receiving Surface Waters**

| **Describe the surface flow pathways:** | |
|---|---|
| Meadowlark Dairy, LLC's stormwater flows through culverts into ditches and flows to the north. | |
| **How many months out of the year is there flow in the nearest surface water pathway:** | Ex. 6. (Personal Privacy) stated that the facility only observes water in the ditches and the unnamed tributary of the Fox River during rain events. |
| **Are there any storm water pathways entering the facility?** | In Pit 4, EPA observed matted down vegetation in the southeast corner. However, Ex. 6. (Personal Privacy) did not think that water was flowing into Pit 4. |
| **Are there any clean water ponds on site?** | There are no clean water ponds on the North or South Sites of Meadowlark Dairy, LLC's Production Area. |
| **What is the name of the first waterway that is identified as a Traditional Navigable Water (TNW) for surface flow from the facility?** | The Fox River. |
| **Is the surface water pathway nearest to the facility considered to be ephemeral, intermittent or perennial?** | There is an unnamed tributary located at the northern end of the North Site. The unnamed tributary flows west on the north side of the North Site approximately 1 |

| | |
|---|---|
| | mile to the Fox River. The Fox River is a traditional navigable waterway and is impaired for nutrients. |
| **Has the surface water pathway nearest to the facility been assessed for water quality?** | The Fox River has been assessed and is impaired for nutrients. |

**Table 8: Nutrient Management Plan**

| | |
|---|---|
| **NMP on site?** | Yes. |
| **Date NMP Submitted:** | Ex. 6. (Personal Privacy) stated that they would need to ask Wisconsin DNR when Meadowlark Dairy, LLC submitted its NMP. |
| **Planner Name/Company:** | Buchner Agronomy Consulting, LLC. |
| **Date that the NMP was last updated:** | March 15, 2019 |
| **Storage Description:** | EPA did not see a description of the storage types. |
| **Amount of Manure Generated:** | In 2018, it was documented in the NMP that 15,958,162 gallons and 2087.2 tons were generated. |
| **Capacity of Storage:** | Pit 1 has 16 million gallons; Pit 4 has 6.5 million gallons; Pit 2 has 1.4 million gallons of storage capacity. |
| **Duration of Storage:** | The facility's total storage capacity exceeds 6 months; however, EPA was not able to determine if 6 months of storage was available at the time of the inspection. |
| **Amount of Spreadable Land:** | NMP documented 2,716.2 spreadable acres. |
| **Mortality Management Plan:** | The permit provides a general description of mortality management, but there is not a plan. |
| **Clean Water Diversion System:** | The clean water off the roofs falls on vegetated areas and flows through culverts into vegetated ditches that are sloped to the north. |
| **Direct Contact Prevention Plan:** | There is no plan, but the permit provides a general description that animals are kept in barns. |
| **Chemical Management Plan:** | There is no plan, but the permit provides a general description how chemicals are managed. |
| **Conservation Practices:** | Yes, conservation practices are done by having a Nutrient Management Plan. |
| **Manure Testing Protocols:** | The facility collects samples as it is pumping from the storage structures to be land applied. |
| **Soil Testing Protocols:** | Documentation was not provided that the facility followed the protocols for soil testing. |
| **Land Application Protocols:** | Facility documented in SnapPlus the methods used for land application. |

| | |
|---|---|
| **Does the NMP reflect the current operational characteristics?** | EPA did not review the narrative section of the NMP to determine if the NMP reflects the current operational practices. |
| **Are the number of acres owned/leased consistent with what is listed in the NMP?** | The number of acres owned/leased recorded above was based on the information found in the NMP. |

**Table 9: Land Application Records (details of the records reviewed)**

| | |
|---|---|
| **Fields available for application this year:** | Yes. Meadowlark Dairy, LLC's fields are entered into SnapPlus. |
| **Timing limitation on fields:** | Limitations are set by Meadowlark Dairy, LLC's WPDES permit. |
| **Annual manure analysis for N and P** | Yes. |
| **Soil tests for fields (for P) less than 5 years old?** | Yes. |
| **Inspection of land application equipment documentation:** | Meadowlark Dairy, LLC hires a contractor to apply the manure, so they don't keep documentation of the equipment. |
| **Field documentation:** | Field documented from the NMP was H-2. |
| **Crop:** | Yes. Meadowlark Dairy, LLC records in SnapPlus their planned crop rotation for five years. |
| **Application Rate:** | The application rate is provided within SnapPlus. |
| **Crop Yield Goals:** | Yes, Meadowlark Dairy, LLC enters a crop yield range in SnapPlus. |
| **Timing of land application:** | Yes. It is done by adding in the season the application will take place into SnapPlus. |
| **Method of land application:** | Pit 1 used a spreader volume of 8.54 or 5400 gallons. 105 Loads were spread on the field. It was surface applied. |

**Table 10: Facility Records (details of the records reviewed)**

| | |
|---|---|
| **Diversion devices:** | Clean water is diverted away from the production area by culverts and ditches. |
| **Impoundments:** | Yes, the facility records the depths and conducts weekly checks. As of 11/18/2019, Pit 1 had 12 feet 7 inches of storage; Pit 2 had 1 foot 10 inches, and Pit 4 had1 foot .25 inches of storage remaining. |
| **Depth marker observations:** | EPA observed the MOL marker and the emergency marker in Pit 1, Pit 2, and Pit 4. |

| | |
|---|---|
| **Water Lines:** | The facility records daily checks of the waterlines on its calendar. |
| **Mortality handling:** | Rendering facility picks up the mortalities. |
| **Storage Structure Design:** | This was submitted to WDNR and Meadowlark Dairy, LLC was not able to provide a copy during the inspection. |
| **Overflow records:** | The facility did not have records on overflows. |
| **Crop Yields:** | SnapPlus records document the range for crop yield goals. |
| **Land Application Dates:** | 6/19/2019 and 7/17/2019 |
| **Weather Conditions at time of application (24 before-24 after):** | Weather information is recorded, but not 24 hours before or 24 hours after. Just at the time of application. |
| **Test Methods for Manure Testing:** | The test methods are recorded by the laboratory. |
| **Test Methods for Soil Testing:** | The test methods are recorded by the laboratory. |
| **Manure Test Results:** | Yes, manure test results were taken and available at the time of the inspection. |
| **Soil Test Results:** | Yes, soil test results were provided at the time of the inspection. |
| **Calculations of N and P applied:** | This is automatically calculated when entered into SnapPlus. |
| **Application Methods:** | Injection, Incorporation and surface application. |
| **Application Equipment Inspection Dates:** | Phil's Pumping & Fabrication Inc.is hired to apply the manure and process wastewater for Meadowlark Dairy, LLC. |

**Table 11: NPDES Permit**

| | |
|---|---|
| **Type of permit (General, individual)** | Individual Permit. WI-0061905-04-0 |
| **Is a copy of the permit on site?** | Did not see a copy of the WPDES Permit. |
| **Date that the permit was issued:** | January 1, 2018 |
| **Date that the permit will expire:** | December 31, 2022 |
| **Permitted number of animal units:** | The number of animals is not defined within the permit. |
| **Does the permit contain a compliance schedule? If yes, provide a detailed description of the requirements and the status.** | No. There is a schedule for the Summary of Reports due. |
| **Have there been any changes made to the production area since the permit was issued? If yes, provide a detailed description.** | EPA was not made aware of any changes to the facility from the time the permit was issued. |

| | |
|---|---|
| **Are there any practices in the permit that are not being done at the facility? (Records kept, inspections performed, etc.)** | At the time of the inspection, the facility was over the MOL of Pit 4. The vegetation on the inner berm of Pit 1 and Pit 4 was not being maintained. |

## 2.2 Walkthrough of the Facility

After receiving approval from Ex. 6. (Personal Privacy) to conduct a walk-through of Meadowlark Dairy, LLC, EPA and Ex. 6. (Personal Privacy) started on the north side of the Milk Parlor on the South Site of Meadowlark Dairy, LLC. Ex. 6. (Personal Privacy) Ex. 6. (Personal Privacy) informed EPA that he and his two brothers manage Meadowlark Dark, LLC. Ex. 6. (Personal Privacy) [redacted] explained that he may not be able to explain the maintenance of the ponds, the manure, etc as we walk around the facility, since he is responsible for the milking and care of the cows.

EPA and Ex. 6. (Personal Privacy) began walking east and then south between the Milk Parlor building and the Large Freestall Barn. EPA observed the septic pit for the bathrooms and washwater from sinks and laundry facilities in the Milk Parlor building (photograph PB210001). EPA walked back to the north between the Milk Parlor and the Large Freestall Barn. EPA observed on the north side of the Large Freestall Barn track-in/track-out during the walk-through. The used bedding, manure, and feed tracked out of the Large Freestall Barn was mixed with stormwater and flowing northeast toward the roadside ditch (photographs PB210002-PB210003). EPA, at the time of inspection, did not observe feed and wastewater making it into a water of the United States at this location.

EPA and Ex. 6. (Personal Privacy) walked to the northwest corner of Pit 1, where EPA observed used bedding and feed dumped on the inner edge of the northwest corner of Pit 1 (photograph PB210004). EPA and Ex. 6. (Personal Privacy) Ex. 6. (Personal Privacy) continued to walk north along the west side of Pit 1. Ex. 6. (Personal Privacy) Ex. 6. (Personal Privacy) explained that the manure, wastewater, and used bedding is scraped into a center transfer pit in the Large Freestall Barn and flows by gravity to Pit 1 (photograph PB210005). EPA observed the Emergency Level marker and the MOL marker installed in Pit 1 (photograph PB210006). EPA continued to walk south along the west side of Pit 1. EPA photographed that the inner berm has not been mowed or maintained (PB210007).

The berm between Pit 1 and Pit 4 is heavily vegetated (photograph PB210005, PB210007, PB210011). EPA and Ex. 6. (Personal Privacy) Ex. 6. (Personal Privacy) continued to walk south on the west side of Pit 4 and observed the Emergency Level marker (rebar) along with the Maximum Operating Level (MOL) marker, the white marker in photograph PB210009. EPA and Ex. 6. (Personal Privacy) Ex. 6. (Personal Privacy) observed that the manure level in Pit 4 was reaching the MOL. (photograph PB210009). EPA and Ex. 6. (Personal Privacy) Ex. 6. (Personal Privacy) continued to walk along the south side of Pit 4 to the east. EPA and Ex. 6. (Personal Privacy) Ex. 6. observed on the southeast corner of Pit 4 that there was a matted path leading into Pit 4. EPA asked Ex. 6. (Personal Privacy) Ex. 6. (Personal Privacy) if stormwater was flowing into Pit 4, which could compromise its storage

capacity (PB210010). Ex. 6. (Personal Privacy) was not aware of any stormwater flowing into Pit 4.

EPA and Ex. 6. (Personal Privacy) began to walk the west side of Pit 4 and Pit 1 to the north. EPA again observed the vegetation growing on the inner berm of Pit 4 and Pit 1 (photographs PB210013 through PB210014). EPA and Ex. 6. (Personal Privacy) observed the concrete slab on the east side of Pit 1. The solids are pulled from or scraped into Pit 1 from this pad. EPA asked Ex. 6. (Personal Privacy) if the berm of Pit 1 was being damaged from the removal of the solids, but he did not think there was a problem with the berm in Pit 1 (PB210017-PB210020). Ex. 6. (Personal Privacy) stated that it was just the solids that had been pushed off the pad and no erosion or berm damage was occurring.

EPA walked back along the East Access Road to the south and observed how clean water is diverted away from the Production Area along the east side of the Large Freestall Barn. Stormwater off the roofs of the barns and other buildings is conveyed through culverts into ditches on the south and east side of the South Site of Meadowlark Dairy, LLC. Depending on where the stormwater falls on the south side of the South Site, it will flow either east or west through culverts and then into ditches that are on the east and west side of the Large and Small Freestall Barns and flow by gravity to the north (PB210021-PB210023).

On the south side of the Large Freestall Barn, EPA observed track-in/track-out from the both the Large and Small Freestall Barns. The track-out of the Small and Large Freestall Barns was mixing with the stormwater during the inspection. EPA did not observe the process wastewater on the south side of the Large and Small Freestall Barns flowing off of the concrete apron and mixing with the clean stormwater in the ditches to the south and east of the Large Freestall Barn (PB210024).

Between the Large and Small Freestall Barns, EPA observed a culvert that, according to Ex. 6. (Personal Privacy) conveyed the flow between the barns to underground piping that outlets to a culvert on the west side of the facility into a crop field and into the West Stormwater Ditch (PB210025, PB210026, PB210033). Used bedding, feed, and manure were pushed out of the Small Freestall Barn's open doors located on the southeast side of the barn, where it is designated as the bedpack part of the barn. Stormwater was coming into contact with the used bedding, feed, and manure. The concrete area outside the Small Freestall Barn was sloped toward the east where the culvert between the Large and Small Freestall Barn is located (PB210027 and PB210028). EPA also observed on the concrete pad on the southeast side of the Small Freestall Barn a mortality that was exposed to the stormwater at the time of the inspection (PB210034). The mortality placement posed a problem for stormwater contamination and for that contaminated stormwater to flow to the east where it would flow into a vegetated low area that contained a drainage culvert inlet between the Small and Large Freestall Barns.

EPA walked between the Large and Small Freestall Barn to the north toward the Bedpack Barn. EPA observed track-in/track-out from the Bedpack Barn. The concrete apron on the south side of the Bedpack Barn is sloped to the south, so stormwater would not flow

into the Bedpack Barn. EPA observed stormwater mixed with used feed, bedding, and manure flowing off of the concrete apron into the vegetated area between the Large and Small Freestall Barn. EPA observed a channel conveying flow from the south side of the Bedpack Barn (PB210026) to the culvert inlet between the Large and Small Freestall Barns (PB210032).

Ex. 6. (Personal Privacy) showed EPA where the culvert outlet that conveyed the flow from the underground piping that was connected to the culvert inlet between the Large and Small Freestall Barns. EPA observed flow coming out of the culvert outlet and observed that the flow from the culvert flowed into the West Stormwater Ditch and flowed north (PB210040 -PB210042, PB210055 through PB210058, IMGP0001).

EPA observed the clean out for the Calf Barn located on the southwest side of the Calf Barn. Some of the feed and wastewater had spilled over the collection area, but EPA did not observe it making it into the culvert between the Calf Barn and Heifer Barn (PB210043-PB210047). EPA and Ex. 6 (Personal Privacy) walked to the west around the Heifer Barn, where Ex. 6. (Personal Privacy) showed EPA the collection pit for the Heifer Barn. Ex. 6. (Personal Privacy) said that the manure within the Heifer Barn is pumped via underground piping into Pit 4 (PB210049). EPA observed track-in/track-out from the west side of the Heifer Barn onto the concrete apron on the west side of the Heifer Barn. The concrete apron and the area south of the concrete apron is sloped to the west toward a ditch. EPA observed a slight berm and heavy vegetation around the ditch. EPA did not observe runoff from the Heifer Barn.

EPA walked along the west side of the Small Freestall Barn documenting that the flow within the West Stormwater Ditch was continuous. EPA observed that the water within the West Stormwater Ditch flowed north and then west through a culvert that runs under Meadowlark Road to the North Site. The flow continues in the West Stormwater Ditch along the west side of the North Site of Meadowlark Dairy, LLC. The West Stormwater Ditch flowed into the unnamed tributary which flows into the Fox River (IMGP0004, IMGP0007, IMGP0009, IMGP0011, IMGP0018).

EPA walked to the North Site of Meadowlark Dairy, LLC's production area to observe how the feed is contained and process wastewater is collected. EPA observed that the high-moisture grains are stored in the Commodity Shed. The corn silage is stored in bunkers. The Silage Bunkers and the Commodity Shed are on concrete. A channel is sloped to the west between the silage bunkers and the Commodity Shed, so that leachate and process wastewater flow by gravity to the west into the Collection Pit. The Collection Pit has a culvert inlet that is connected to underground piping that conveys the process wastewater by gravity to the north through the culvert outlet into the Concrete Channel located south of the Vegetated Treatment Area. The process wastewater flows out of the Concrete Channel to the northwest toward the pump. The pump collects the 1st flush and pumps it to Pit 4. The remaining process wastewater is dispersed through the VTA. EPA walked the entire VTA and did not observe channeled flow after the third spreader barn during the inspection. EPA observed that there was flow within the unnamed tributary to the Fox River.

## 2.3 Closing Conference and Post-Inspection:

After EPA completed the walk-through of the North and South Sites of Meadowlark Dairy, LLC's Production Area, Ex. 6. (Personal Privacy) contacted his brothers Ex. 6. (Personal Privacy) Ex. 6. (Personal Privacy), who met up with us.

EPA the areas of concern they had observed during the walk-through.

1. EPA observed track-in/track-out which contained used feed, manure, and used bedding on the concrete apron on the east and south side of the Small Freestall Barn and the Bedpack Barn. EPA observed stormwater coming into contact with track-in/track-out and it was flowing off the concrete apron to the vegetated area between the Large and Small Freestall Barns. EPA observed channeled flow in the vegetated area between the barns flowing toward the culvert inlet between the Small and Large Freestall Barns. The vegetated area is sloped toward the culvert inlet. The culvert inlet is connected to underground piping that conveys flow to a culvert outlet into the West Stormwater Ditch. The West Stormwater Ditch conveys the flow by gravity to the unnamed tributary to the Fox River.
2. EPA observed a mortality that was being stored on the southeast side of the Small Freestall Barn and at the time of inspection being exposed to stormwater. The stormwater that came into contact with the mortality was observed flowing into the vegetated area betweeen the Small and Large Freestall Barns which flows into the culvert inlet between the Small and Large Freestall Barns.
3. Pit 4 was close to the MOL.
4. Pit 4 may have run-on occurring, which would limit the capacity of Pit 4.
5. In Pit 1, the berm may have erosional issues from solids removal.

| | |
|---|---|
| **Were specific Areas of Concern discussed with facility personnel?** | Yes. |
| **Who were the Areas of Concern discussed with?** EPA explained what they had observed during the walk-through of the North and South Sites Production Area at Meadowlark Dairy, LLC to Ex. 6 (Personal Privacy) of the Production Area. | |
| **Were any deficiencies or areas of concern addressed or fixed during the inspection? If so, list what was done.** No. They did not address any concerns at the time of the inspection. | |
| **Compliance assistance materials given to facility personnel:** | |
| U.S. EPA Small Business Recources Information Sheet June 2017 | |
| Burning Garbage: A Problem for Our Communities | |
| Winter/Slope and Fall N Restricted Soils on My Farm. | |
| Wisconsin's Runoff Rules January 2013 | |
| **Exit Time:** | Approximately 4:04 p.m. |
| **Disposable Boots Left at Facility?** | Yes. |

| | |
|---|---|
| **Vehicle Washed after leaving facility?** | Washed on November 25, 2019. |
| | |
| **Date that vehicle was washed:** | Washed on Monday, November 25, 2019. |

**Table 13: Waterway Documentation**

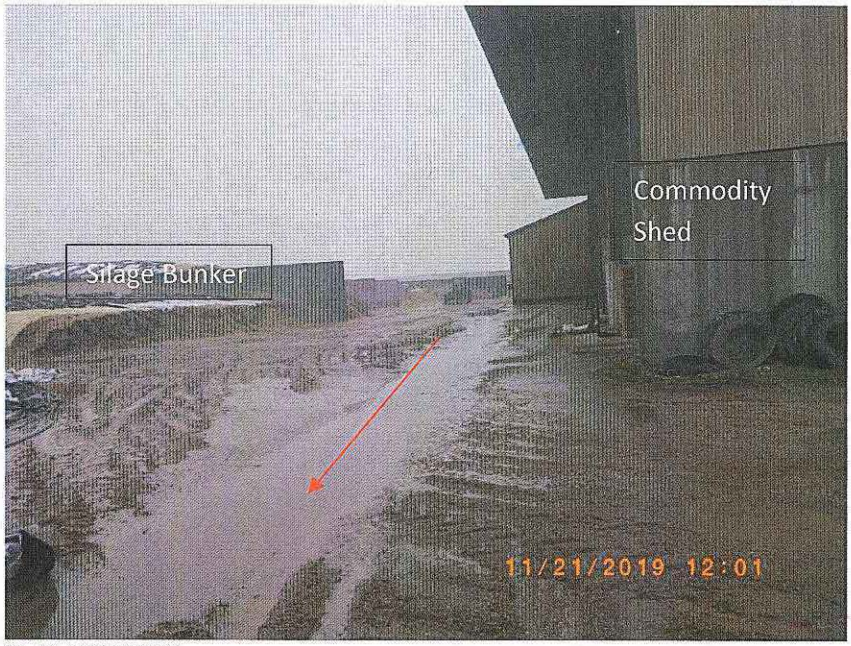
| **List the pathway taken by EPA inspectors to document the waterway at the facility.** |
|---|
| EPA documented that there was flow in the unnamed tributary that flows to the Fox River. |

**Table 14a: Sampling Information**

| | |
|---|---|
| **Were samples taken?** | No. |

**Meadowlark Dairy, LLC**
**EPA Inspection 11/21/2019**
**All photos taken by Cheryl Burdett, CAFO Program Manager, U.S. EPA**
**Camera: Olympus Touch F2.0 and Pentax WG-1**


1: IMGP0001
Description: The West Stormwater Ditch on the west side of the South Site conveys flow by gravity to the north as shown by the red arrow. The water within the West Stormwater Ditch flows by gravity through the culvert inlet (within the red circle) to the north side of Meadowlark Road.
Location: West side of the South Site, northwest of the Small Freestall Barn.
Camera Direction: Northwest.
Date: 11/21/2019.




2: IMGP0002
Description: The Process Wastewater Channel between the Silage Bunkers and the Commodity Shed conveys leachate and process wastewater flow by gravity to the Collection Pit. The red arrow shows the direction of flow of the process wastewater in the Process Wastewater Channel.
Location: Between Commodity Shed and Silage Bunkers located on the North Site.
Camera Direction: East.
Date: 11/21/2019.


3: IMGP0003
Description: The process wastewter and silage leachate flow by gravity in the Process Wastewater Channel to the west into the Collection Pit. The red arrow shows the direction of flow and identifies the Collection Pit in the photo above.
Location: East of the Collection Pit, south of the Silage Bunkers and northwest of the Commodity Shed.
Camera Direction: West.
Date: 11/21/2019.


4: IMGP0004
Description: The red arrows show the direction of flow of the process wastewater in the Process Wastewater Channel and into the Collection Pit. The red arrow in the photo in the Collection Pit shows that the process wastewater goes into the culvert inlet which is connected to underground piping that conveys the process wastewater flow by gravity through a culvert outlet into the Concrete Channel south of the Vegetated Treatment Area (VTA).
Location: Southeast corner of the Collection Pit and northwest of the Commodity Shed and south of the Silage Bunkers.
Camera Direction: Northwest.
Date: 11/21/2019.


5: IMGP0005
Description: In the blue box is feed that has spilled or had been dumped on the ancillary areas south of the Silage Bunkers on the west side of the North Site.
Location: South of the Silage Bunkers and Southwest of the Commodity Shed on the North Site.
Camera Direction: South.
Date: 11/21/2019.

6: IMGP0006
Description: Feed washed off the concrete pad at the southeast corner of the Collection Pit. The feed is in the blue box in the photo above.
Location: Southeast corner of the Collection Pit on the North Site.
Camera Direction: Down.
Date: 11/21/2019.


7: IMGP0007
Description: The red arrow shows the direction of flow of process wastewater collected in the Collection Pit as it flows through the culvert inlet into the undeground pipe that conveys the process wastewater flow by gravity through a culvert outlet into the Concrete Channel south of the VTA.

The blue arrow shows the direction of flow in the West Stormwater Ditch. The stormwater in the West Stormwater Ditch flows by gravity to north along the west side of the North Site.
Location: Southwest of the Silage Bunkers and southwest of the Collection Pit.
Camera Direction: North.
Date/Time: 11/21/2019.

8: IMGP0008
Description: The silage leachate and process wastewater flow west by gravity in the Process Wastewater Channel between the Silage Bunkers and the Commodity Shed into the Collection Pit. The process wastewater within the Collection Pit flows by gravity to north (as shown by the red arrow in the photo) through the culvert inlet into underground piping that conveys the flow by gravity to the north to the Concrete Channel south of the VTA. The underground piping is located on the west side of the Silage Bunkers.
Location: Southwest of the Silage Bunkers and southwest of the Collection Pit located on the North Site.
Camera Direction: Southwest corner of the Silage Bunkers on the North Site.
Date: 11/21/2019.

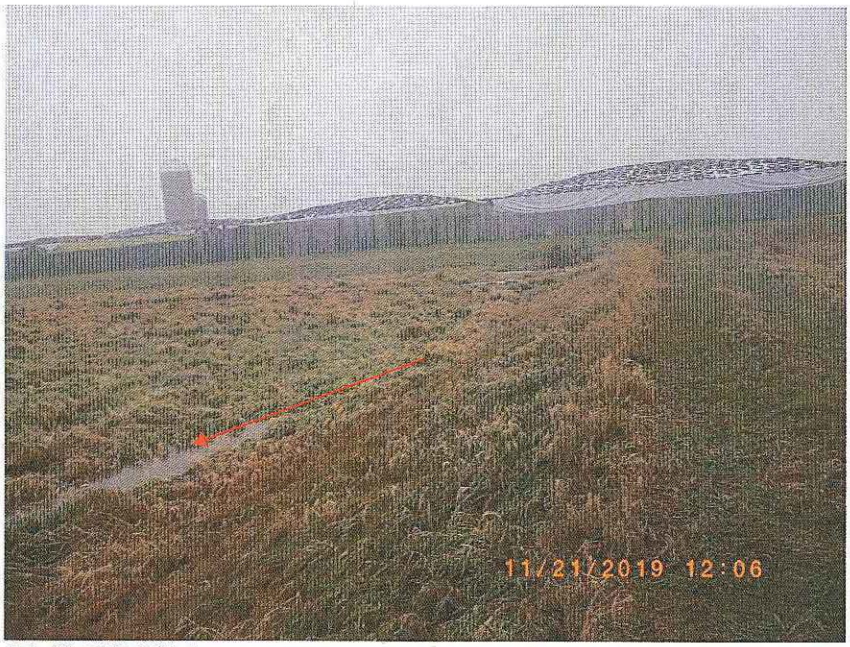

9: IMGP0009
Description: The blue arrow shows the stormwater flow in the West Stormwater Ditch from the South Site through a culvert under Meadowlark Road that outlets on the North Site. The stormwater continues to flow by gravity in the West Stormwater Ditch along the west side of the North Site to the north.
Location: Southwest Corner of the Silage Bunkers on the North Site.
Camera Direction: North.
Date: 11/21/2019.


10: IMGP0010
Description: The process wastewater flows in the Process Wastewater Channel to the west into the Collection Pit located on the North Site. The red arrows show the direction of flow into the Collection Pit.
Location: South side of the Collection Pit on the North Site.
Camera Direction: North/Down.
Date: 11/21/2019.


11: IMGP0011
Description: The West Stormwater Ditch located on the west side of the VTA flows by gravity to the unnamed tributary of the Fox River.
Location: Southwest of the VTA on the east side of the West Stormwater Ditch on the North Site.
Camera Direction: North.
Date: 11/21/2019.


12: IMGP0012
Description: The process wastewater within the Collection Pit flows through the culvert inlet connected to underground piping where process wastewater flows by gravity to the north through a culvert outlet into the Concrete Channel south of the VTA.
Location: Southwest corner of the Concrete Channel that is south of the VTA on the North Site.
Camera Direction: East.
Date: 11/21/2019.

13: IMGP0013
Description: The process wastewater in the Concrete Channel, south of the VTA, flows by gravity out of the Concrete Channel to the northwest toward the pump. The pump is designed to collect the 1st flush of process wastewater coming out of the Concrete Channel and into the VTA. The first flush is pumped into Pit 2. The remaining process wastewater is dispersed by gravity through the VTA.
Location: Southwest side of the VTA located on the North Site.
Camera Direction: Northeast.
Date: 11/21/2019.




14: IMGP0014
Description: The remaining process wastewater gravity flows through the VTA. At the time of the inspection, EPA observed a channel on the west side of the VTA betweeen the 1st and 2nd spreader bars. The red arrow shows the location of the channel formed within the VTA in the photo above and the direction of flow of process wastwater within the VTA.
Location: The channel is located on the west side of the VTA, north of the 1st spreader bar located on the North Site.
Camera Direction: Southeast.
Date: 11/21/2019.


15: IMGP0015
Description: The 2nd spreader bar within the VTA. The red arrows show the direction of flow of process wastewater within the VTA (flows north).
Location: The VTA is located on the North Site.
Camera Direction: East.
Date: 11/21/2019.


16: IMGP0016
Description: The 3rd spreader bar within the VTA. The most of the process wastewater was held back by the 3rd spreader bar.
Location: On the west side of the VTA at the 3rd spreader bar on the North Site.
Camera Direction: East.
Date: 11/21/2019.


17: IMGP0017
Description: The unnamed tributary of the Fox River north of the VTA, flows west toward the Fox River.
Location: Northwest of the VTA on the North Site.
Camera Direction: East.
Date: 11/21/2019

18: IMGP0018
Description: The West Stormwater Ditch was flowing into the unnamed tributary of the Fox River during the inspection. The blue arrow in the photo above shows the direction of flow of the stormwater from the West Stormwater Ditch.
Location: Northwest of the VTA on the North Site.
Camera Direction: North.
Date/Time: 11/21/2019.

19: IMGP0019
Description: The West Stormwater Ditch was flowing into the unnamed tributary of the Fox River.
Location: North of the VTA on the North Site.
Camera Direction: Northwest.
Date: 11/21/2019.

20: IMGP0020
Description: The headwaters of the unnamed tributary of the Fox River.
Location: Northwest of the VTA on the North Site.
Camera Direction: Northeast.
Date: 11/21/2019.

21: IMGP0021
Description: The headwaters of the unnamed tributary of the Fox River  The blue arrow shows the direction of flow, which is to the west.
Location: Northwest of the VTA on the North Site.
Camera Direction: Down/West
Date: 11/21/2019.


22: IMGP0022
Description: The blue arrow shows the West Stormwater Ditch flowing into the unnamed tributary of the Fox River.
Location: Northwest of the VTA on the North Site.
Camera Direction: East.
Date: 11/21/2019.


23: IMGP0023
Description: The unnamed tributary of the Fox River flowing northwest toward the Fox River. The blue arrow shows the direction of flow of the unnamed tributary of the Fox River.
Location: Northwest of the VTA on the North Site.
Camera Direction: West.
Date: 11/21/2019.

24: IMGP0024
Description: The unnamed tributary of the Fox River flowing to the west toward the Fox River. The blue arrow shows the direction of flow of the unnamed tributary of the Fox River.
Location: Northwest of the VTA on the North Site.
Camera Direction: Northwest.
Date: 11/21/2019.


25: IMGP0025
Description: The unnamed tributary of the Fox River flowing northwest toward the Fox River. The blue arrow in the photo above shows the direction of flow within the unnamed tributary of the Fox River.
Location: Northwest of the VTA on the North Site.
Camera Direction: East.
Date: 11/21/2019.

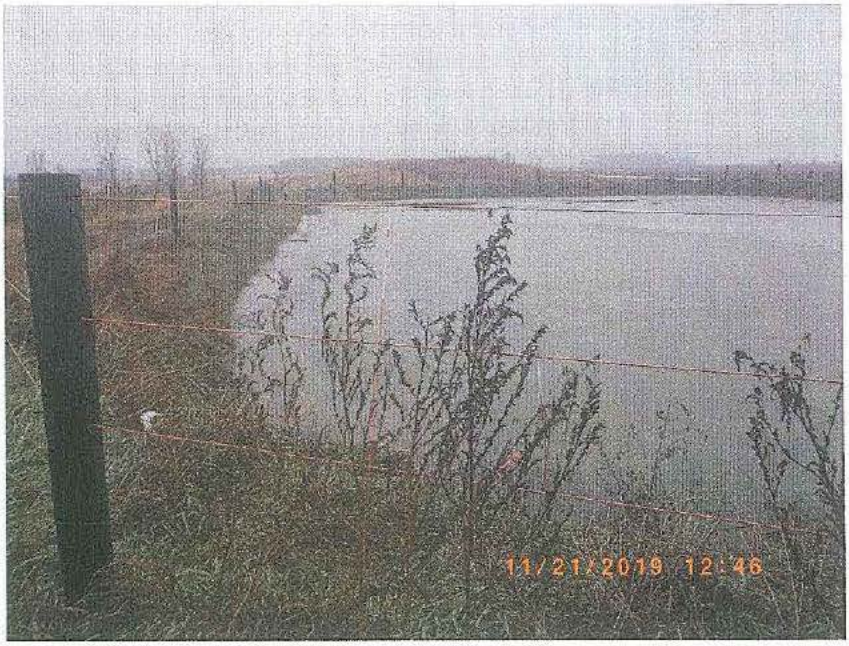
26: IMGP0026
Description: The 4th spreader bar within the VTA, with water seeping from the south side of the spreader bar to the north side.
Location: North side of 4th spreader bar on the North Site.
Camera Direction: Down.
Date: 11/21/2019.


27: IMGP0027
Description: Water within VTA. North of spreader barn #4. .
Location: North of spreader bar #4 within the VTA on the North Site.
Camera Direction: Down.
Date: 11/21/2019.

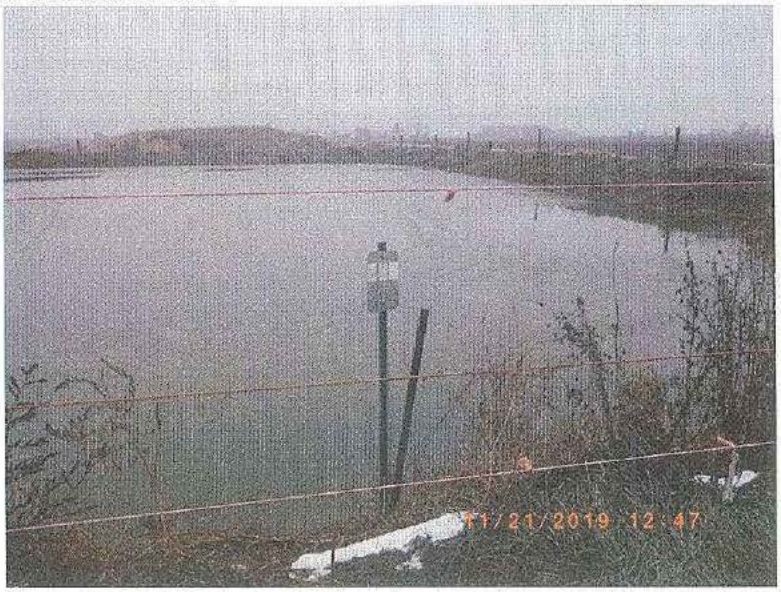

28: IMGP0028
Description: The process wastewater collected in the pump within the VTA is pumped to Pit 2.
Location: The pump within the VTA is located on the northwest side of the VTA on the North Site.
Camera Direction: Northeast.
Date: 11/21/2019.


29: IMGP0029
Description: The wastewater in the Concrete Channel south of the VTA flows by gravity out of the Concrete Channel into the VTA.
Location: South of the VTA.
Camera Direction: East
Date: 11/21/2019.

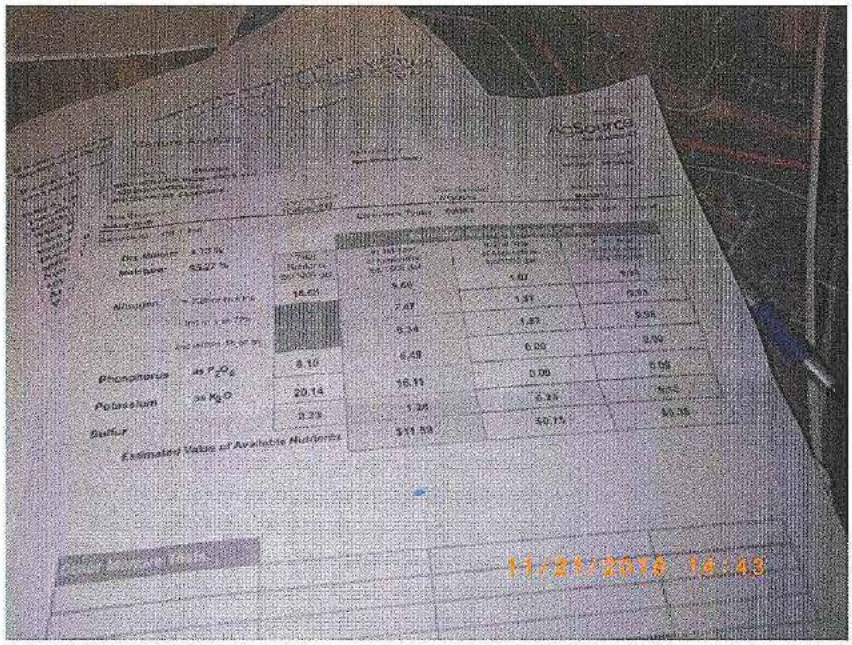

30: IMGP0030
Description: The red arrow shows the direction of flow in the Process Wastewater Channel. The process wastewater flows by gravity to the west toward the Collection Pit.
Location: North of the Machine Shed.
Camera Direction: West.
Date: 11/21/2019.



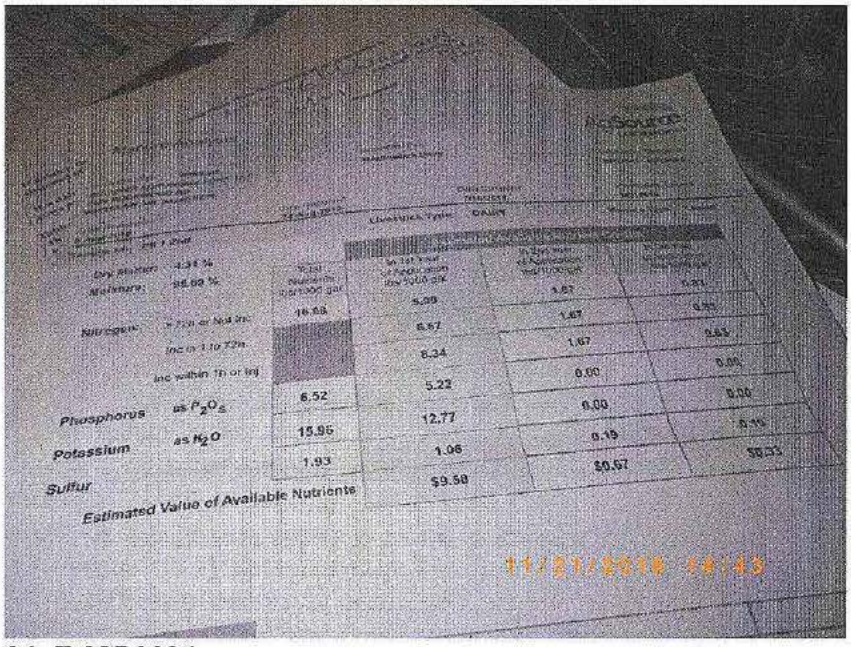

31: IMGP0031
Description: Process wastewater collected in the pump in the VTA is pumped to Pit 2.
Location: Pit 2 is located on the east side of the North Site.
Camera Direction: North.
Date: 11/21/2019.



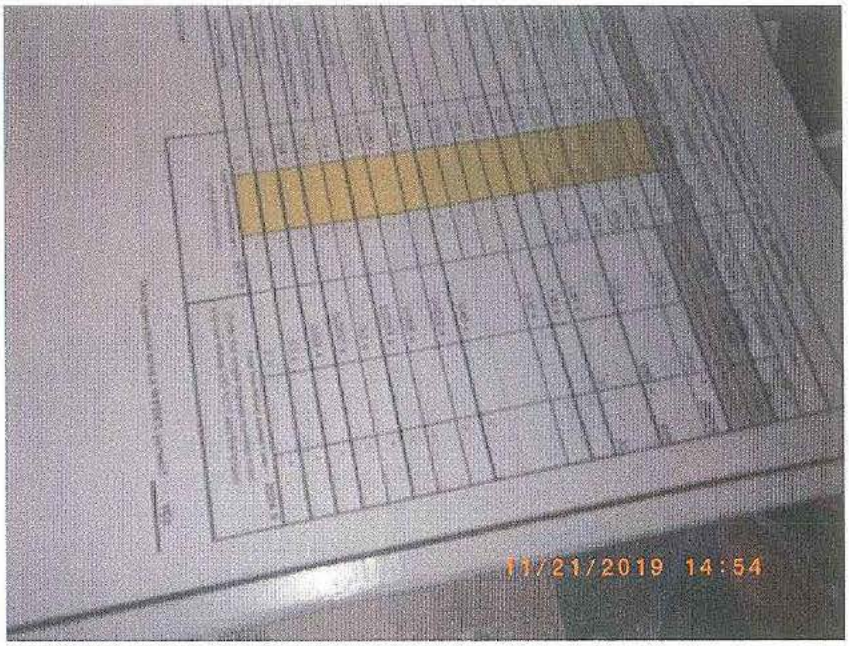

32: IMGP0032
Description: The Emergency Level (rebar without sign) marker and Maximum Operating Level (MOL) marker in Pit 2.
Location: Pit 2 is located on the east side of the North Site.
Camera Direction: North.
Date: 11/21/2019.



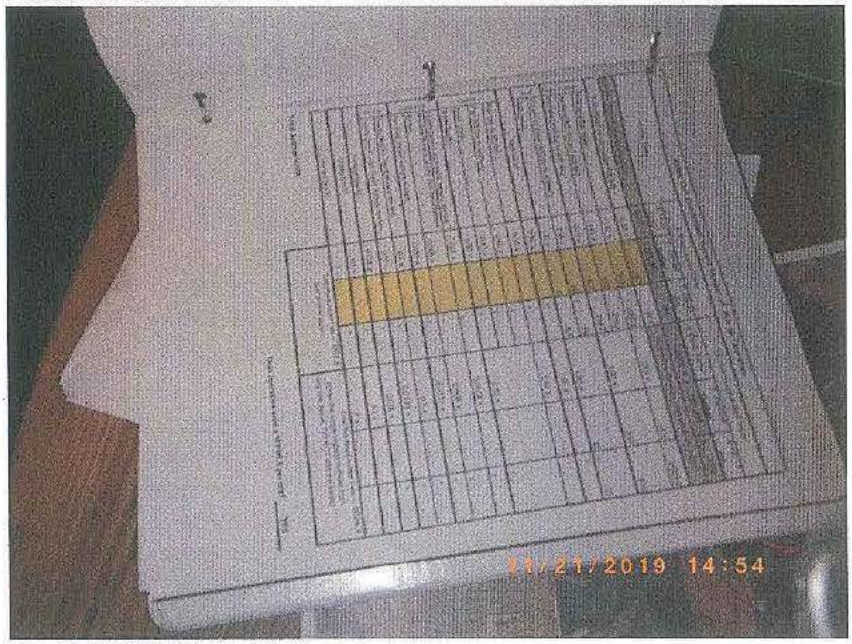

33: IMGP0033
Description: AgSource Laboratories Sampling Results for Pit 1, 1st Set of Samples.
Location: Garage of Ex. 6. (Personal Privacy) on the North Site.
Camera Direction: Down.
Date: 11/21/2019.



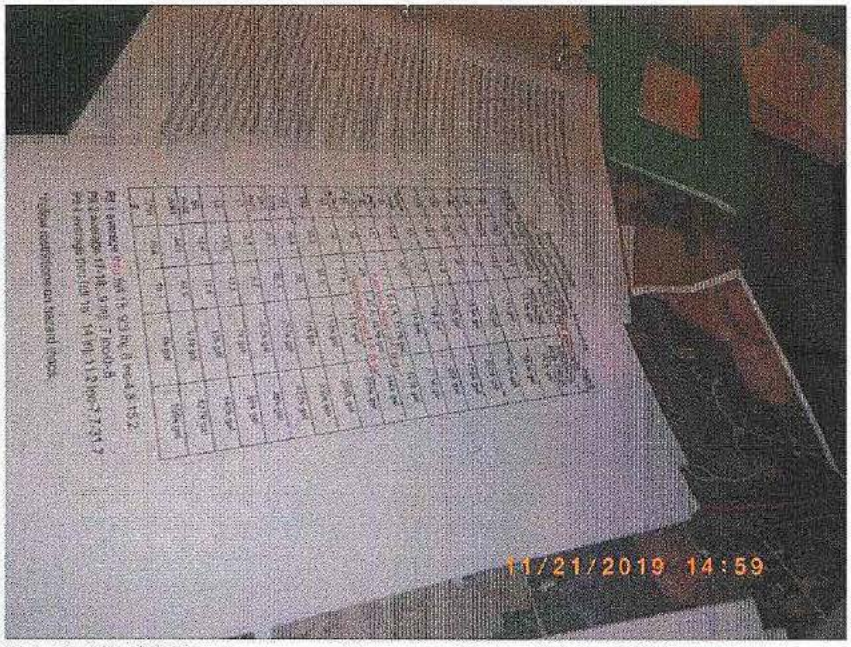

34: IMGP0034
Description: AgSource Laboratories Sampling Results for Pit 1, 2nd Set of Samples
Location: Garage of Ex. 6. (Personal Privacy) on the North Site.
Camera Direction: Down.
Date: 11/21/2019.



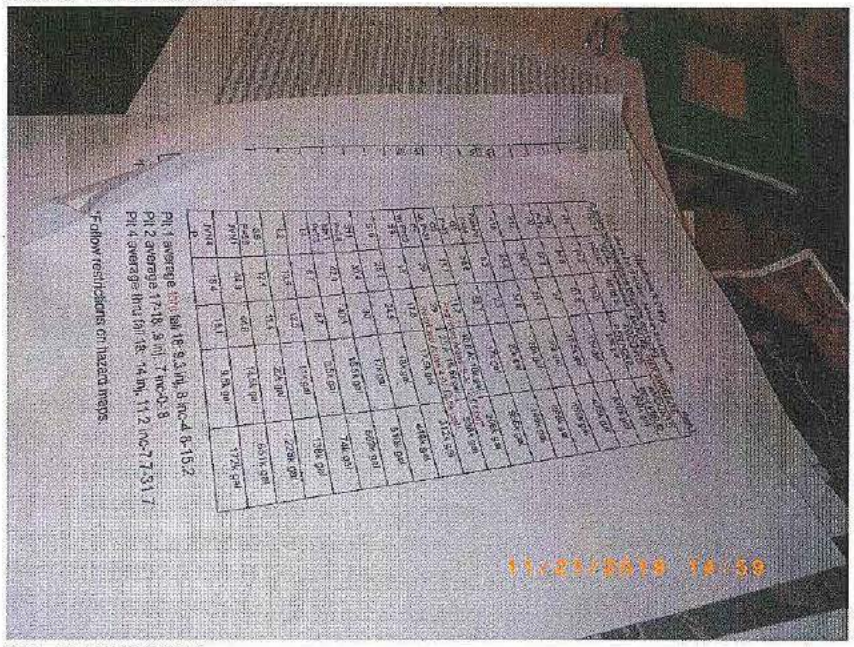

35: IMGP0035
Description: Animal Numbers Sheet.
Location: Garage of Ex. 6. (Personal Privacy) on the North Site.
Camera Direction: Down.
Date: 11/21/2019.




36: IMGP0036
Description: Animal Calculation Units.
Location: Garage of Ex. 6. (Personal Privacy) on the North Site. Production Area.
Camera Direction: Down.
Date: 11/21/2019.

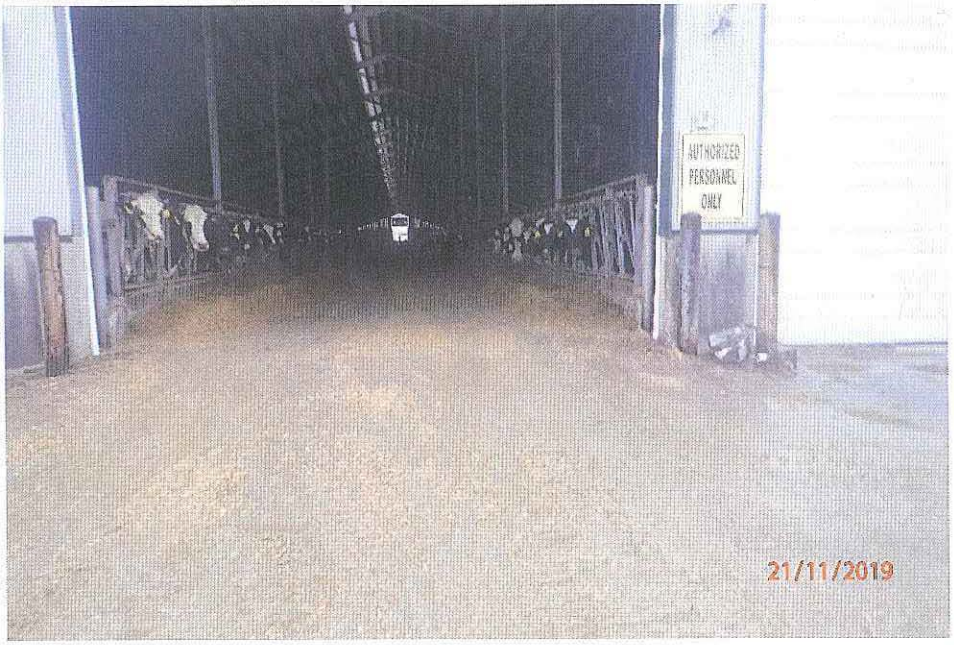



37: IMGP0037
Description: Fields applied to from Pit 4.
Location: Garage of Ex. 6. (Personal Privacy) on the North Site.
Camera Direction: Down.
Date: 11/21/2019.




38: IMGP0038
Description: Fields that Meadowlark Dairy, LLC injected manure and/or process wastewater.
Location: Garage of Ex. 6. (Personal Privacy) on the North Site
Camera Direction: Down.
Date: 11/21/2019.

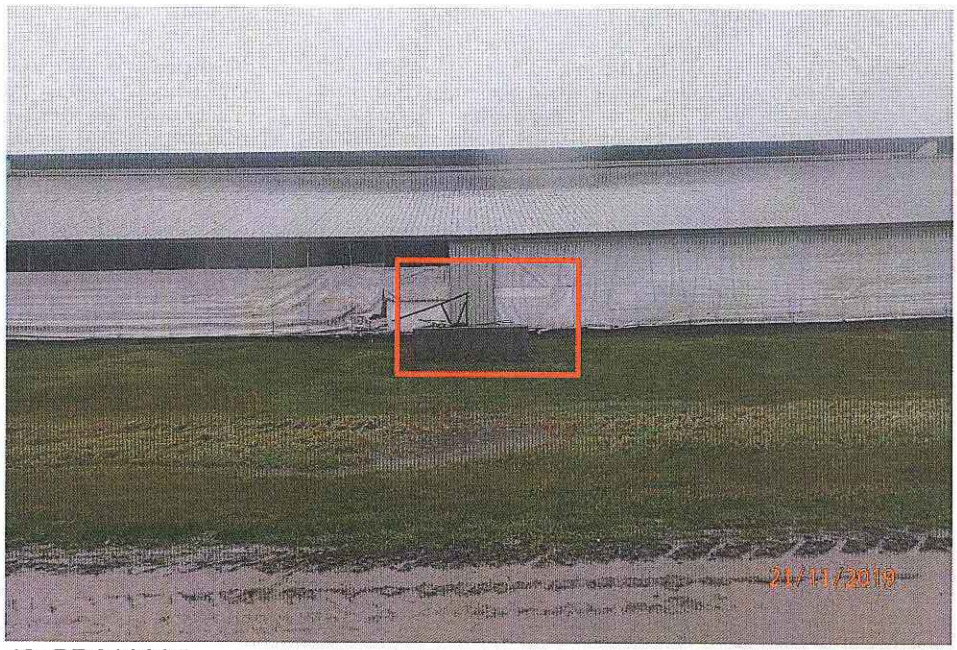

39: PB210001
Description: Septic Tank.
Location: Between the Milk Parlor and the Large Freestall Barn on the South Site.
Camera Direction: Down.
Date: 11/21/2019.




40: PB210002
Description: Large Freestall Barn.
Location: North side of the Large Freestall Barn on the South Site.
Camera Direction: North.
Date: 11/21/2019.


41: PB210003
Description: Used feed, bedding, and manure tracked out of the Large Freestall Barn.
Location: North side of the Large Freestall Barn on the South Site.
Camera Direction: Northeast.
Date: 11/21/2019.


42: PB210004
Description: Used bedding, feed, and manure on the inner berm of Pit 1.
Location: Northwest corner of Pit 1 on the South Site.
Camera Direction: Southeast.
Time: 11/21/2019.

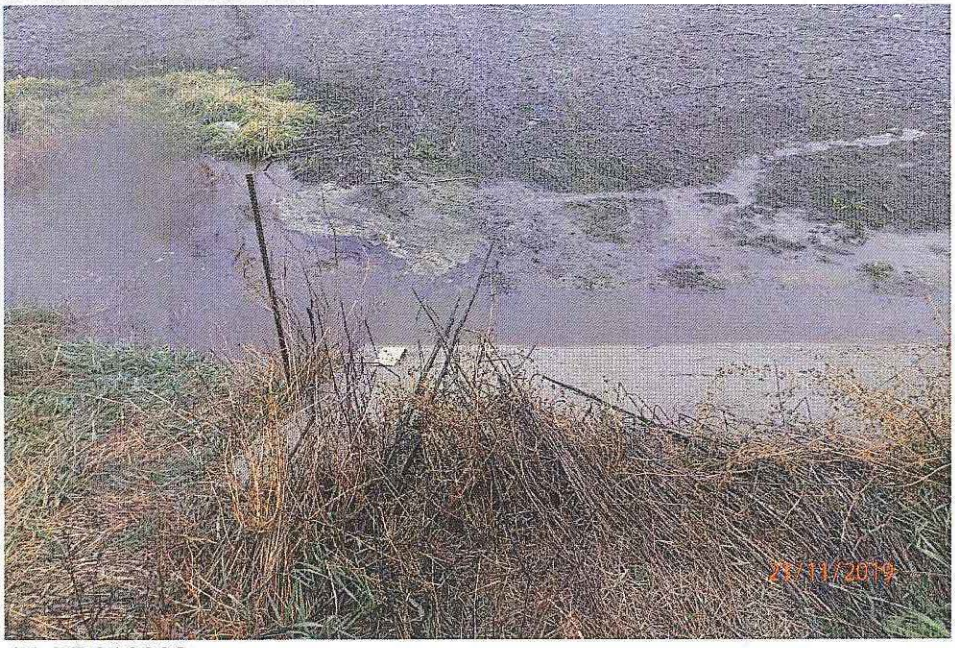



43: PB210005
Description: Center Transfer Pit (in the red box in the photo) on the east side of the Large Freetall Barn. The manure from the Large Freestall Barn is conveyed by gravity from the Center Transfer Pit into Pit 1.
Location: East side of the Large Freestall Barn located on the South Site.
Camera Direction: West.
Date: 11/21/2019.


44: PB210006
Description: MOL marker in Pit 1.
Location: West side of Pit 1on the South Site.
Camera Direction: East.
Date: 11/21/2019.

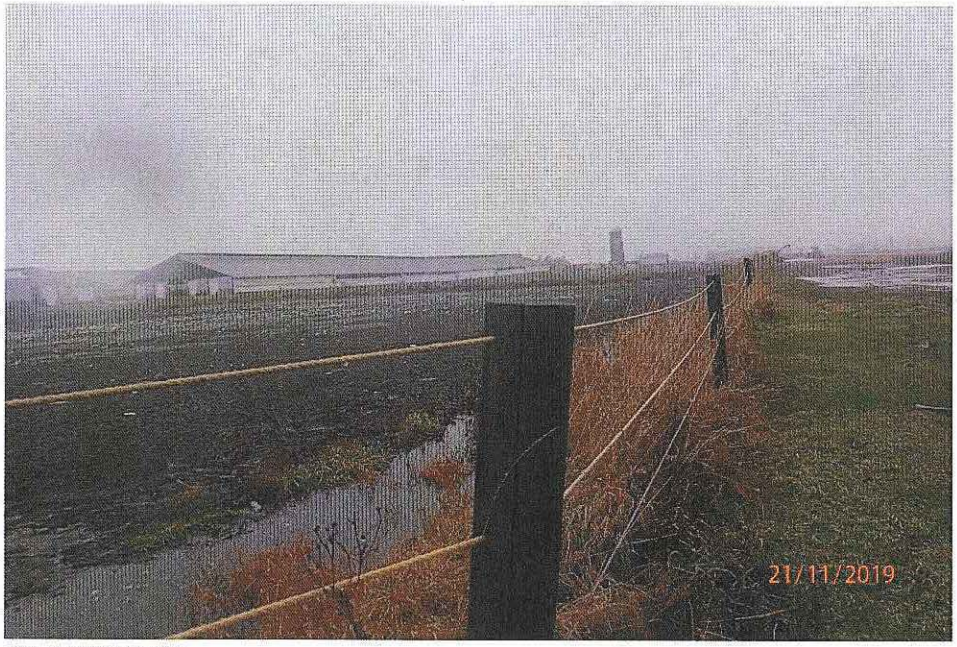

45: PB210007
Description: The berm between Pit 1 and Pit 4.
Location: On the west side of the berm between Pit 1 and Pit 4 on the South Site.
Camera Direction: East.
Date/Time: 11/21/2019.


46: PB210008
Description: Pump station on the southeast corner of the Calf Barn.
Location: East side of the pump station and the Calf Barn located on the South Site.
Camera Direction: West.
Date/Time: 11/21/2019.

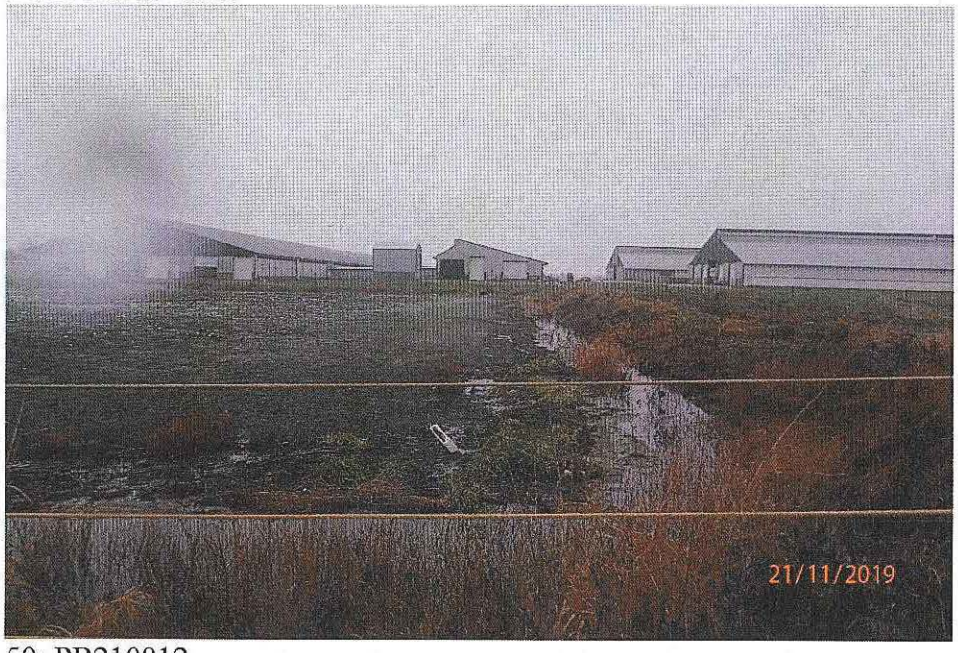


47: PB210009
Description: The rebar marks the Emergency Level and the white marker is the MOL in Pit 4.
Location: West side of Pit 4 on the South Site.
Camera Direction: Down.
Date: 11/21/2019.

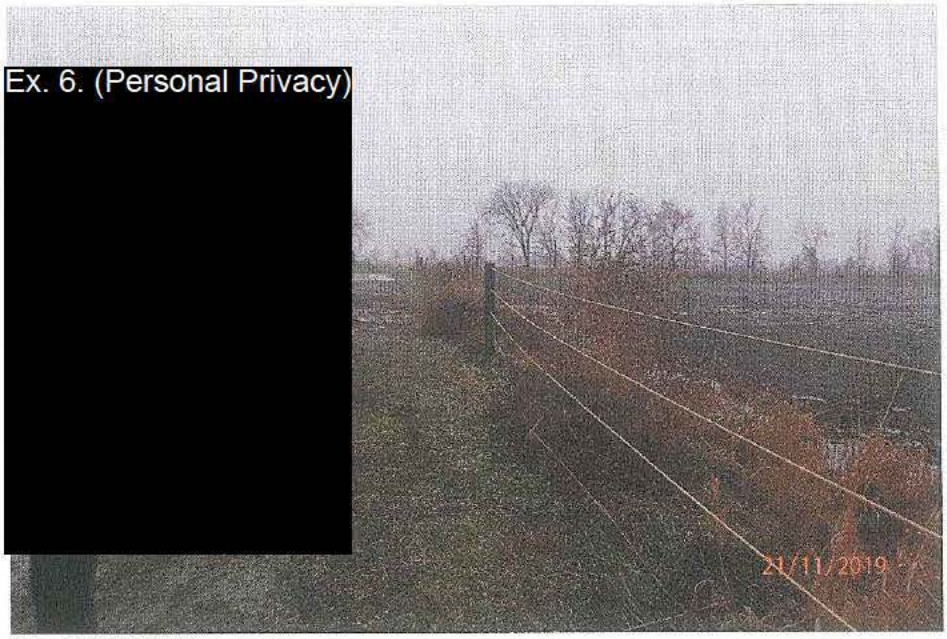
48: PB210010
Description: Southeast corner of Pit 4. EPA oberved that the grass was matted down in the southeast corner of Pit 4 (in the red box in the photo above).
Location: Southeast corner of Pit 4 on the South Site.
Camera Direction: Northwest.
Date: 11/21/2019.



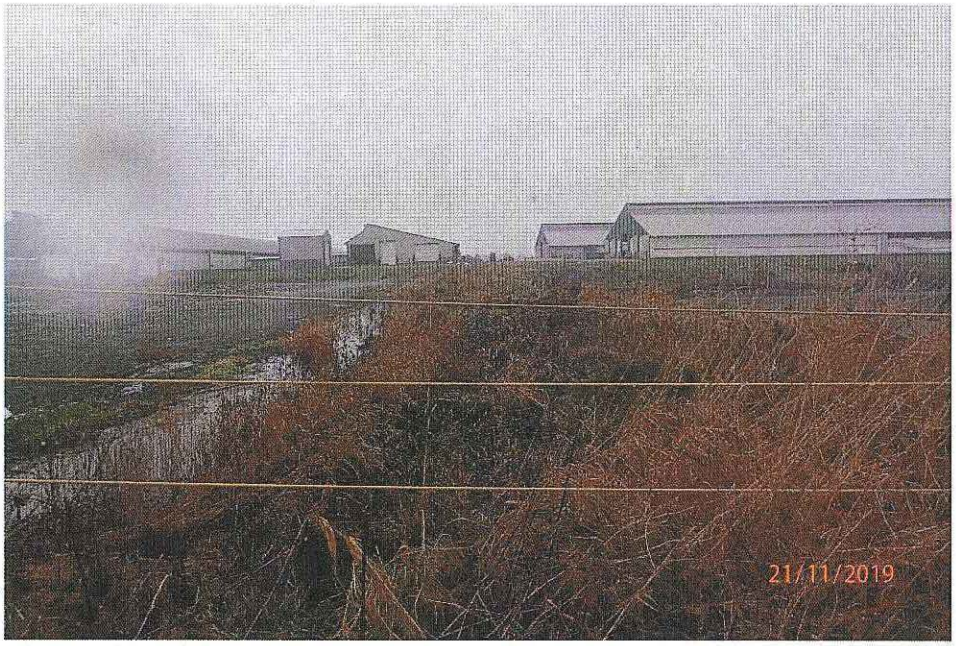

49: PB210011
Description: Overall photo of Pit 4 with inner berm vegetation and the high level within Pit 4.
Location: Southeast corner of Pit 4 located on the South Site.
Camera Direction: Northwest..
Date: 11/21/2019.




50: PB210012
Description: The berm between Pit 1 and Pit 4.
Location: East side of Pit 1 and Pit 4 located on the South Site.
Camera Direction: West.
Date: 11/21/2019.

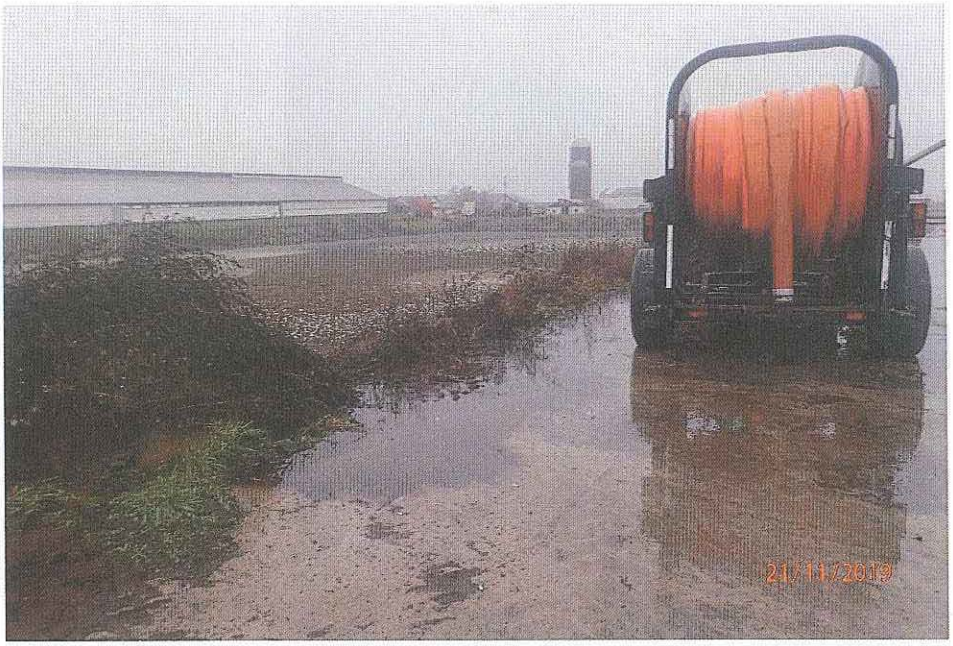



51: PB210013
Description: The vegetation on the inner berm and observing the level within Pit 4.
Location: East side of Pit 4 located on the South Site.
Camera Direction: South.
Date: 11/21/2019.




52: PB210014
Description: The berm between Pit 1 and Pit 4 and the amount of vegetation on the berm.
Location: East side of the berm between Pit 1 and Pit 4 on the South Site.
Camera Direction: West.
Date: 11/21/2019.


53: PB210015
Description: Concrete Pad used for temporary storage of solids.
Location: East side of Pit 1 on the South Site.
Camera Direction: North
Date: 11/21/2019.



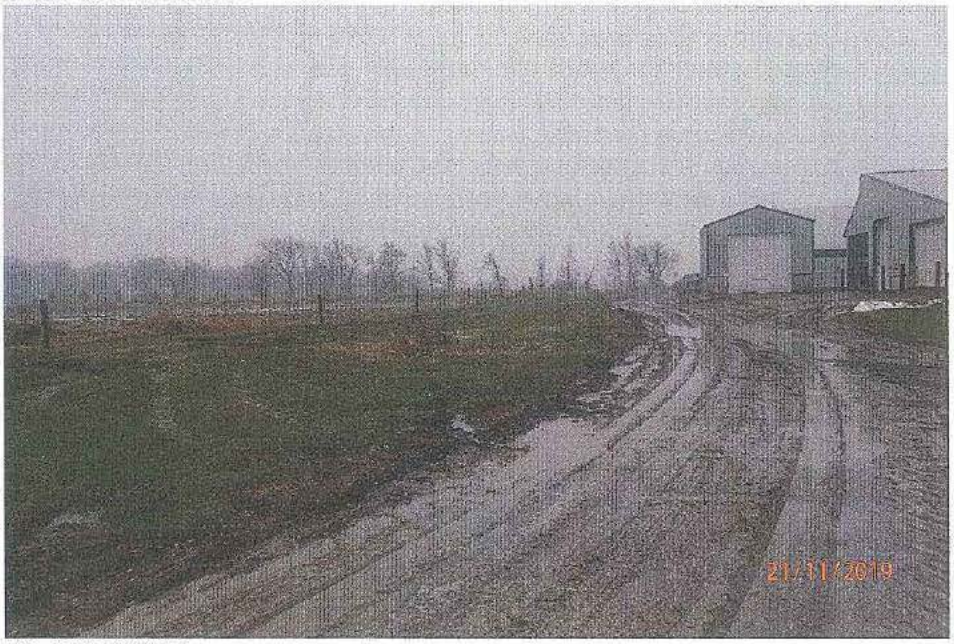

54: PB210016
Description: Concrete Pad with drag line.
Location: East side of Pit 1 on the South Site.
Camera Direction: Northwest.
Date: 11/21/2019.


55: PB210017
Description: Solids are pushed off the Concrete Pad into Pit 1 or are pumped out of Pit 1 and stored on the Concrete Pad when preparing to land apply.
Location: East side of Pit 1 on the South Site.
Camera Direction: Northwest.
Date: 11/21/2019.


56: PB210018
Description: Solids being pumped out of Pit 1.
Location: East side of Pit 1 on the South Site.
Camera Direction: Northwest.
Date: 11/21/2019.

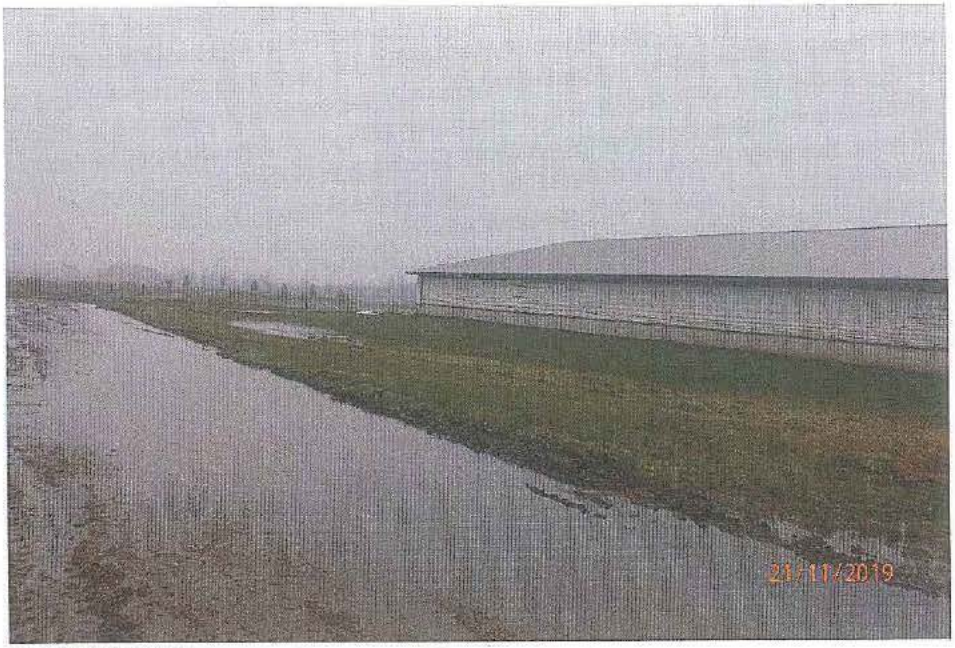

57: PB210019
Description: Equipment used to pump out solids from Pit 1.
Location: East side of Pit 1 on the South Site.
Camera Direction: Down.
Date: 11/21/2019.


58: PB210020
Description: EPA was looking at the channels within the solids. EPA was concerned if the berm integrity was being compromised.
Location: On the Concrete Pad, east side of Pit 1 on the South Site.
Camera Direction: Southwest.
Date: 11/21/2019.

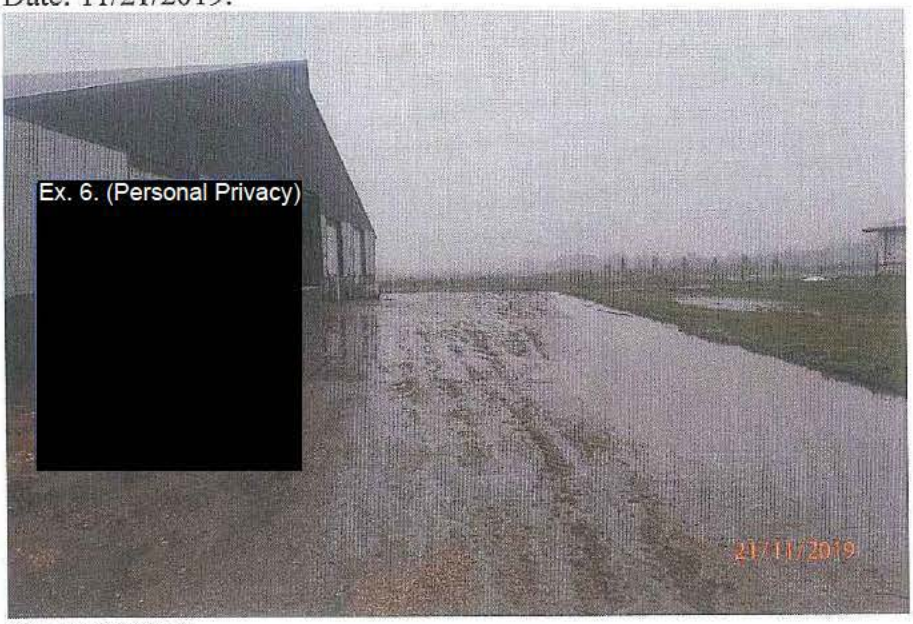



59: PB210021
Description: East Access Road between the Large Freestall Barn and Pit 1 and Pit 4.
Location: East Access Road between the Large Freestall Barn and Pit 1 and Pit 4 on the South Site.
Camera Direction: Southeast.
Date: 11/21/2019.


60: PB210022
Description: The ditch on the east side of Large Freestall Barn conveys stormwater by gravity to north from the south side of the Large Freestall Barn and the Large Freestall Barn's roof (the blue arrow shows the direction of flow in the Stormwater Ditch above).
Location: South of the stormwater ditch on the east side of the Large Freestall Barn on the South Site.
Camera Direction: North.
Date: 11/21/2019.

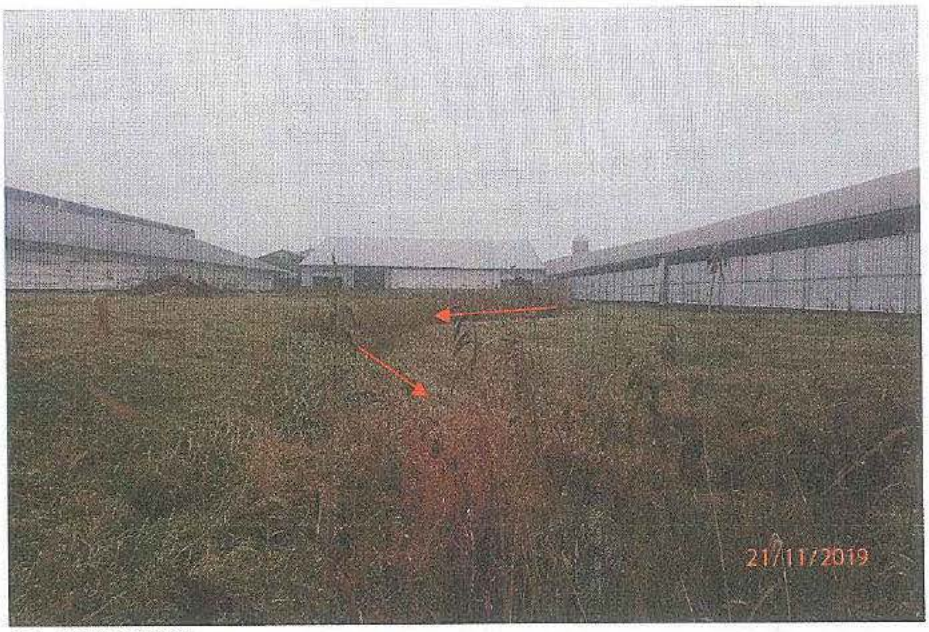



61: PB210023
Description: Stormwater coming into contact used feed, manure, and bedding on the concrete apron on the south side of the Large Freestall Barn.
Location: On the concrete apron on the south side of the Large and Small Freestall Barns on the South Site.
Camera Direction: Southeast.
Date: 11/21/2019.




62: PB210024
Description: On the concrete apron, track-in/track-out of used bedding, feed, and manure out of the Large and Small Freestall Barns.
Location: Southwest corner of the Large Freestall Barn on the South Site.
Camera Direction: East.
Date: 11/21/2019.

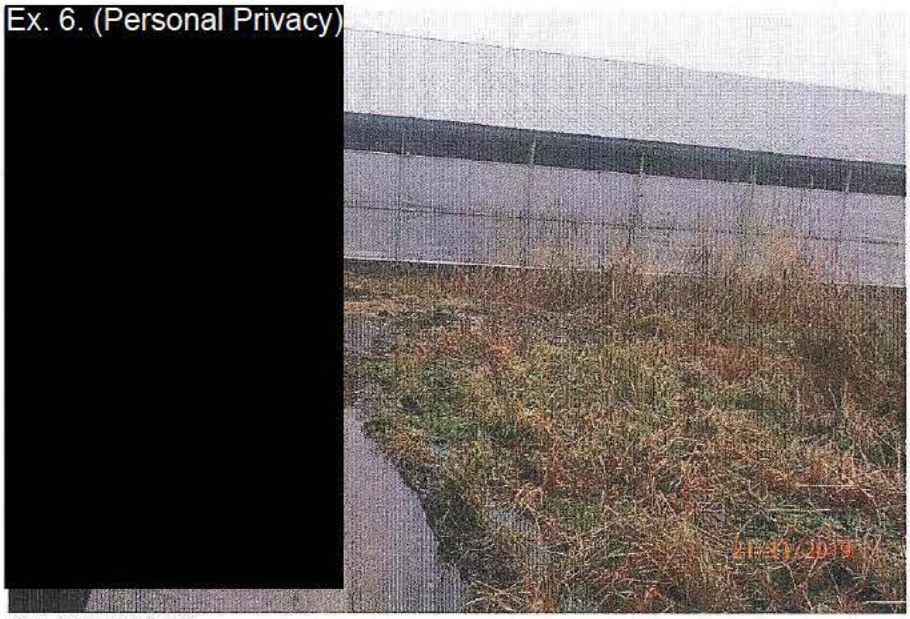
63: PB210025
Description: Culvert inlet (in the red box in the photo above) between the Large and Small Freestall Barns.
Location: In the vegetated area between the Large and Small Freestall Barns on the South Site.
Camera Direction: Down and north.
Date: 11/21/2019.




64: PB210026
Description: EPA observed a channel between the Large and Small Freestall Barns that was conveying flow toward the culvert inlet in the photo above. The red arrows show the location of the channel and the direction of flow.
Location: In the vegetated area between the Large and Small Freestall Barns on the South Site.
Camera Direction: North.
Date: 11/21/2019.


65: PB210027
Description: Used feed, manure, and bedding pushed out of the southeast side of the Small Freestall Barn has been converted to bedpack. Stormwater was coming into contact with the used feed, manure and bedding and flowing off of the concrete apron into the vegetated area between the Small and Large Freestall Barns. The stormwater within the vegetated area flows into culvert inlet between the Large and Small Freestall Barn and flows through a culvert outlet into the West Stormwater Ditch.
Location: Southeast side of the Small Freestall Barn located on the South Site.
Camera Direction: Northwest and Down.
Date: 11/21/2019.

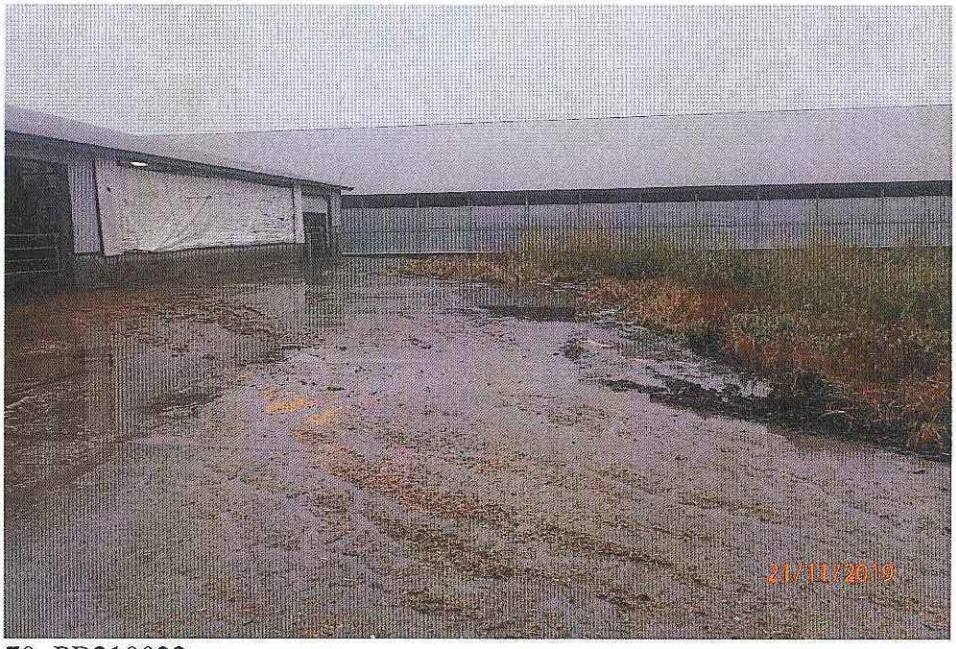

66: PB210028
Description: Used feed, manure, and bedding pushed out of the southeast side of the Small Freestall Barn that has been converted to bedpack. Stormwater was coming into contact with the used feed, manure and bedding and flowing off of the concrete apron into the vegetated area between the Small and Large Freestall Barns. The stormwater within the vegeted area flows into culvert inlet between the Large and Small Freestall Barn and flows through a culvert outlet into the West Stormwater Ditch.
Location: Southeast side of the Small Freestall Barn on the South Site.
Camera Direction: North.
Date: 11/21/2019.




67: PB210029
Description: On the concrete apron south of the Bedpack Barn, EPA observed stormwater coming into contact with used feed, manure, and bedding and flowing off of the concrete apron into the vegeated area between the Large and Small Freestall Barns (as identified by the aerial, Photo Attchment B).
Location: Between the Small and Large Freestall Barns on the South Site.
Camera Direction: East.
Date: 11/21/2019.

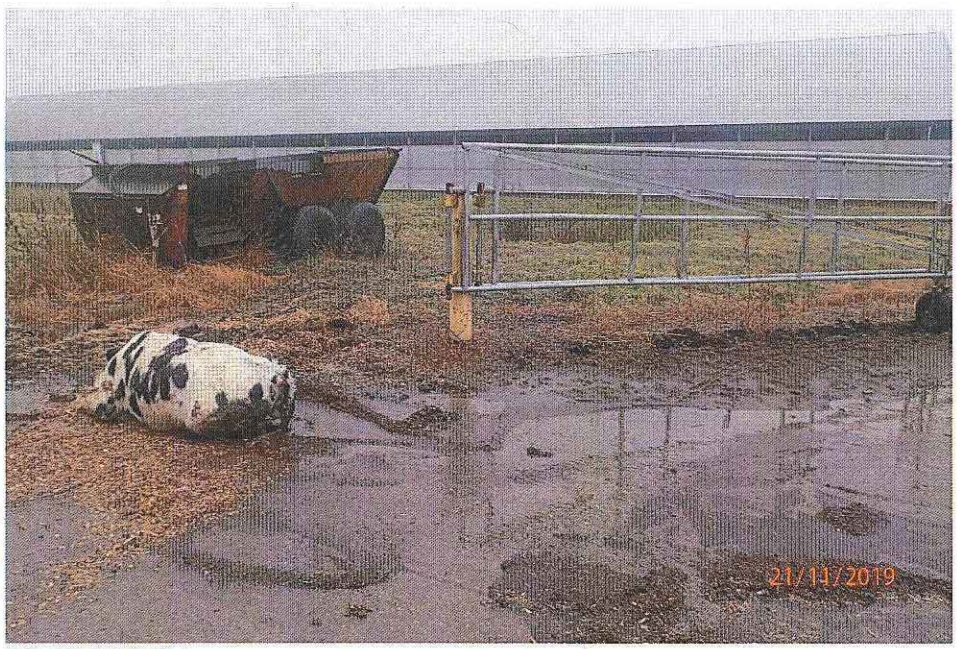

68: PB210030
Description: Used bedding, feed, and manure was being pushed out of the Bedpack Barn or tracked out by equipment on the concrete apron south of the Bedpack Barn. The concrete apron south of the Bedpack Barn is sloped to the south, so that the process wastewater flows off of the concrete apron into the vegetated area between the Small and Large Freestall Barns. EPA observed flow in the vegetated area between the barns flowing toward the culvert inlet.
Location: Between the Small and Large Freestall Barns on the south side of the Bedpack Barn on the South Site.
Camera Direction: West.
Date: 11/21/2019.


69: PB210031
Description: South side of the Bedpack Barn, where EPA observed used feed, bedding, and manure on and flowing off of the concrete apron into the vegetated area between the barn.
Location: Southwest corner of the Bedpack Barn located on the South Site.
Camera Direction: South.
Date: 11/21/2019.

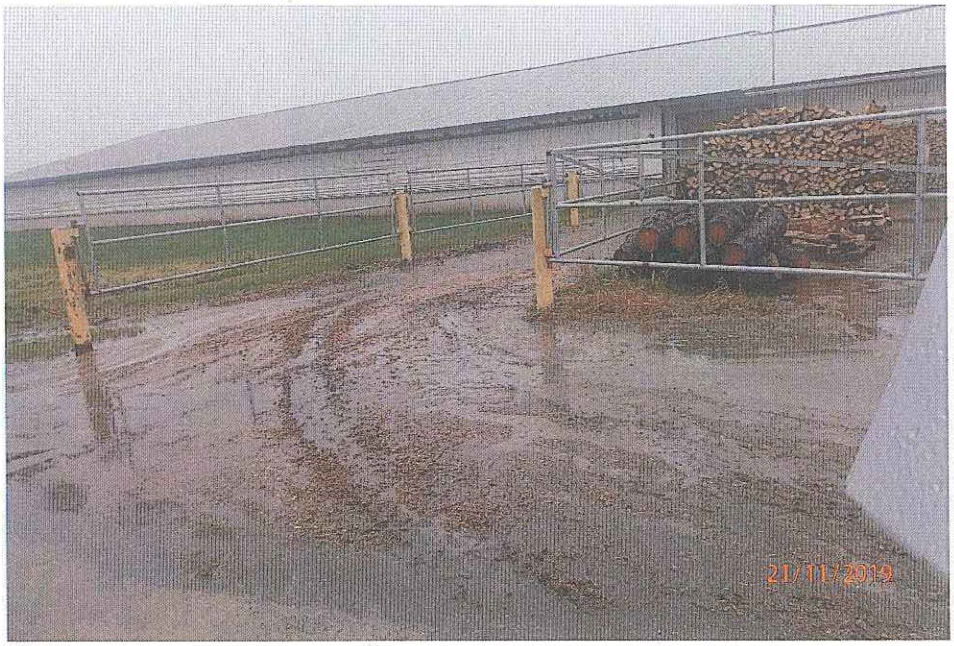


70: PB210032
Description: Track-in/track-out of used feed, manure, and bedding from the Bedpack Barn mixed with stormwater flowing off of the concrete apron into the vegetated area between the barns.
Location: Between the Small and Large Freestall Barns and on the concrete apron south of the Bedpack Barn.
Camera Direction: East.
Date/Time: 11/21/2019.

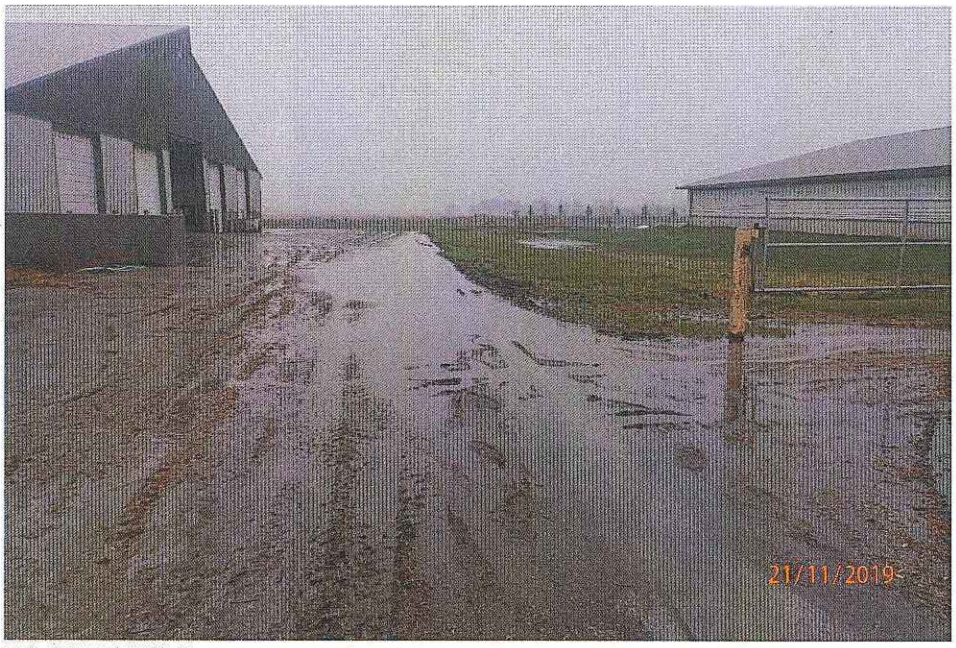

71: PB210033
Description: Used feed, manure, and bedding pushed out of the door on the southeast side of the Small Freestall Barn. The stormwater was coming into contact with the used feed, manure and bedding on the concrete apron on the east side of the Small Freestall Barn and flowing off the concrete apron and into the vegetated area between the barns. The vegetated area is sloped toward culvert inlet. The culvert inlet is connected to underground piping that conveys flow to a culver outlet into the West Stormwater Ditch. The West Stormwater Ditch coveys the flow by gravity to the unnamed tributary of the Fox River.
Location: Southeast corner of the Small Freestall Barn on the South Site.
Camera Direction: West.
Date/Time: 11/21/2019.



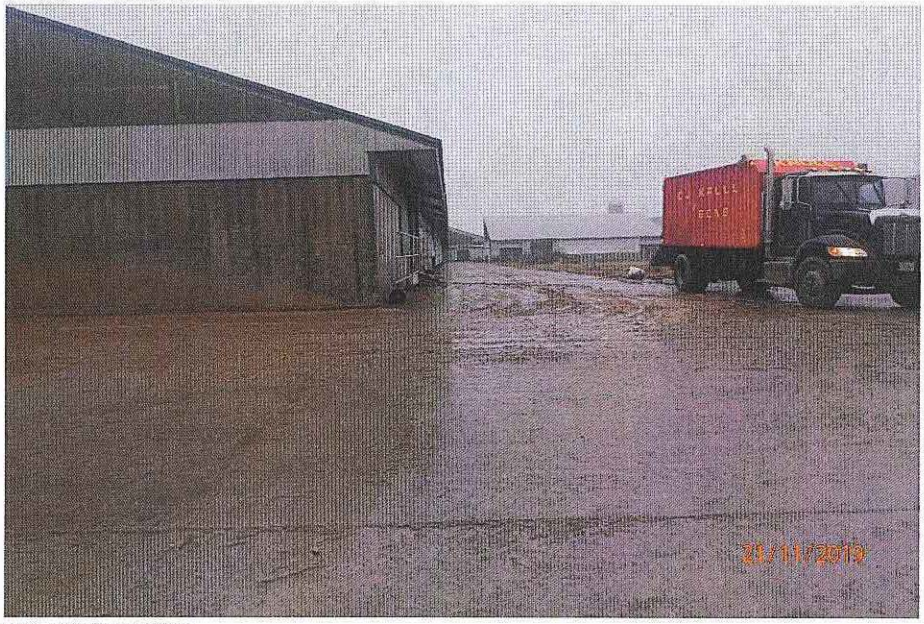

72: PB210034
Description: Dead cow stored on the concrete apron on the southeast corner of Small Freestall Barn. Stormwater was coming into contact with the dead cow, which the concrete is sloped to flow toward the vegetated area toward the culvert inlet between the Large and Small Freestall Barn. The culvert inlet is connected to underground piping that conveys the flow by gravity to the culvert outlet that flows into the West Stormwater Ditch. The West Stormwater Ditch conveys flow by gravity to the unnamed tributary of the Fox River.
Location: Southeast side of the Small Freestall Barn on the South Site.
Camera Direction: Northeast.
Date: 11/21/2019.



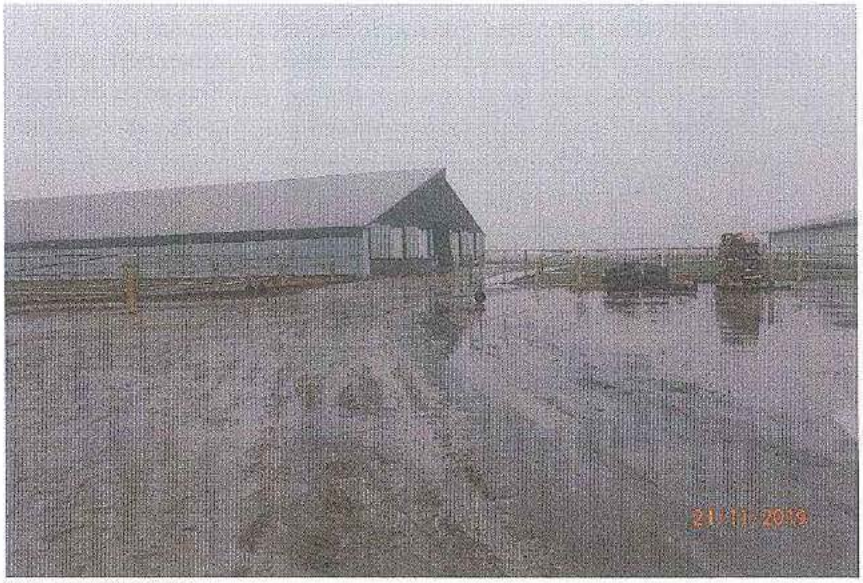

73: PB210035
Description: Used feed, manure, and bedding from track-in/track-out of equipement that goes into the Large and Small Freestall Barns and the Calf Barn.
Location: On the cattle walkway, between the Large and Small Freestall Barns and the Calf Barn on the on the South Site.
Camera Direction: Southeast.
Date: 11/21/2019.




74: PB210036
Description: Track-in/track-out of used feed, manure, and bedding on the concrete apron and also used as a cattle walkway between the Small and Large Freestall Barns and the Calf Barn.
Location: South side of the Small and Large Freestall Barns on the South Site.
Camera Direction: East.
Date: 11/21/2019.




75: PB210037
Description: Truck traffic coming from the Small Freestall Barn.
Location: Southeast corner of the Small Freestall Barn on the South Site.
Camera Direction: North.
Date: 11/21/2019.



76: PB210038
Description: Track-in/track-out of used feed, manure, and bedding from vehicles going into the barns deposited onto the concrete apron south of the Large and Small Freestall Barns.
Location: South of the Small Freestall Barn on the South Site.
Camera Direction: Northeast.
Date: 11/21/2019.


77: PB210039
Description: The culvert outlet discharges flow from the underground pipes connected to the culvert inlet between the Small and Large Freestall Barns into the West Stormwater Ditch west of the South Site.
Location: Between the crop field and the southwest corner of the Small Freestall Barn on the South Site.
Camera Direction: Down/West.
Date: 11/21/2019.

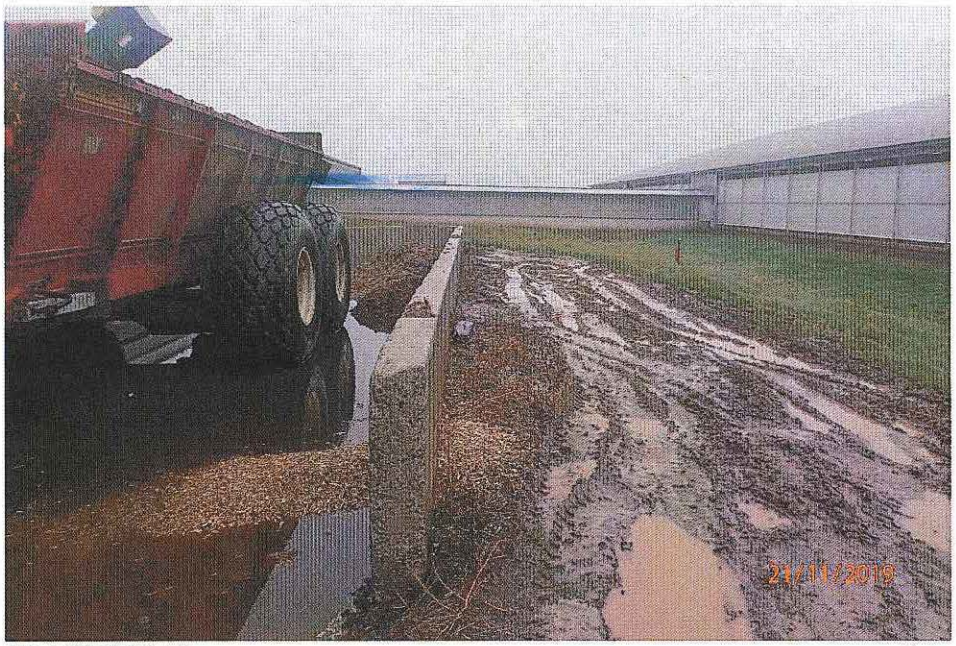
78: PB210040
Description: Culvert outlets (in the red box in the photo above) into theWest Stormwater Ditch.
Location: Between the crop field and the southwest corner of the Small Freestall Barn on the South Site
Camera Direction: Down/West.
Date: 11/21/2019.


79: PB210041
Description: The culvert outlets (culvert outlet in the red box in the photo above) into the West Stormwater Ditch.
Location: Between the crop field and the southwest corner of the Small Freestall Barn on the South Site.
Camera Direction: West.
Date: 11/21/2019.


80: PB210042
Description: The red arrow shows the direction of flow in the West Stormwater Ditch. The flow from the culvert inlet between the Large and Small Freestall Barns flows through underground pipes to the culvert outlet discussed in photos 77: PB210039, 78: PB210040, and 79: PB210041 and flows into the West Stormwater Ditch.
Location: North of the the culvert outlet and the southwest side of the Small Freestall Barn located on the South Site.
Camera Direction: North.
Date: 11/21/2019.

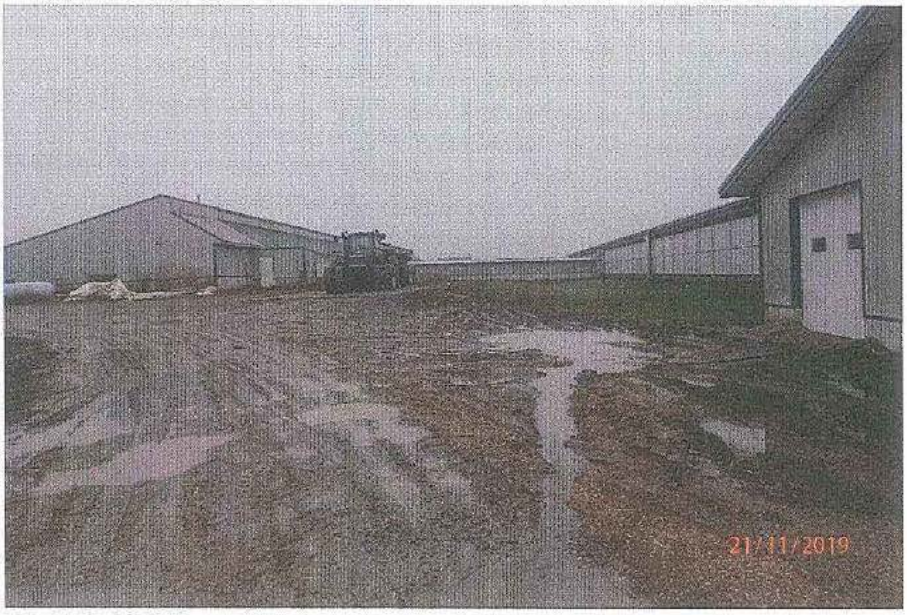

81: PB210043
Description: Clean out of the Calf Barn Pit.
Location: Southwest corner of the Calf Barn on the South Site.
Camera Direction: East.
Date: 11/21/2019.


82: PB210044
Description: Loading of the manure from the Calf Barn pit.
Location: Southwest corner of the Calf Barn on the South Site.
Camera Direction: East.
Date: 11/21/2019.




83: PB210045
Description: Bedding, feed, and process wastewaster spilled over the edge of the pump out area of the Calf Barn.
Location: Between the Calf Barn and the Heifer Barn on the South Site.
Camera Direction: East.
Date: 11/21/2019.

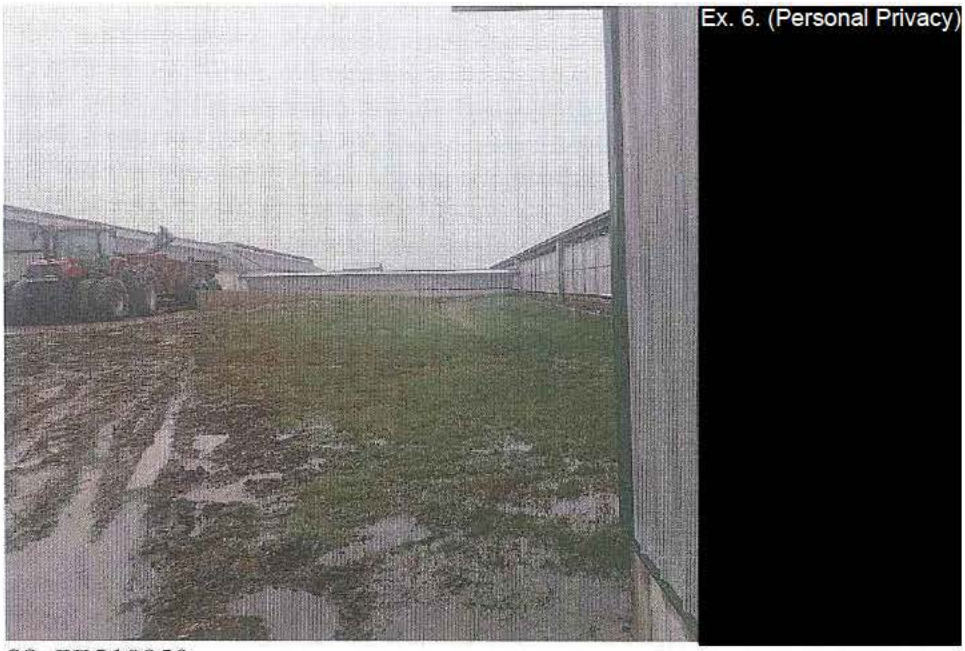

84: PB210046
Description: Containment area of the pump out of the Calf Barn pit.
Location: Between the Heifer Barn and Calf Barn on the South Site.
Camera Direction: East.
Date: 11/21/2019.




85: PB210047
Description: Track-in/track-out of used feed, manure, and bedding from the Heifer Barn.
Location: North side of the Heifer Barn on the South Site.
Camera Direction: East.
Date: 11/21/2019.


86: PB210048
Description: Stormwater from the north side of the Heifer Barn flows by gravity to the north into a crop field on the west side of the South Site.
Location: North side of the Heifer Barn on the South Site.
Camera Direction: North.
Date: 11/21/2019.


87: PB210049
Description: The pump and and pit for manure collected in the Heifer Barn.
Location: North side of the Heifer Barn on the South Site.
Camera Direction: Down.
Date: 11/21/2019.

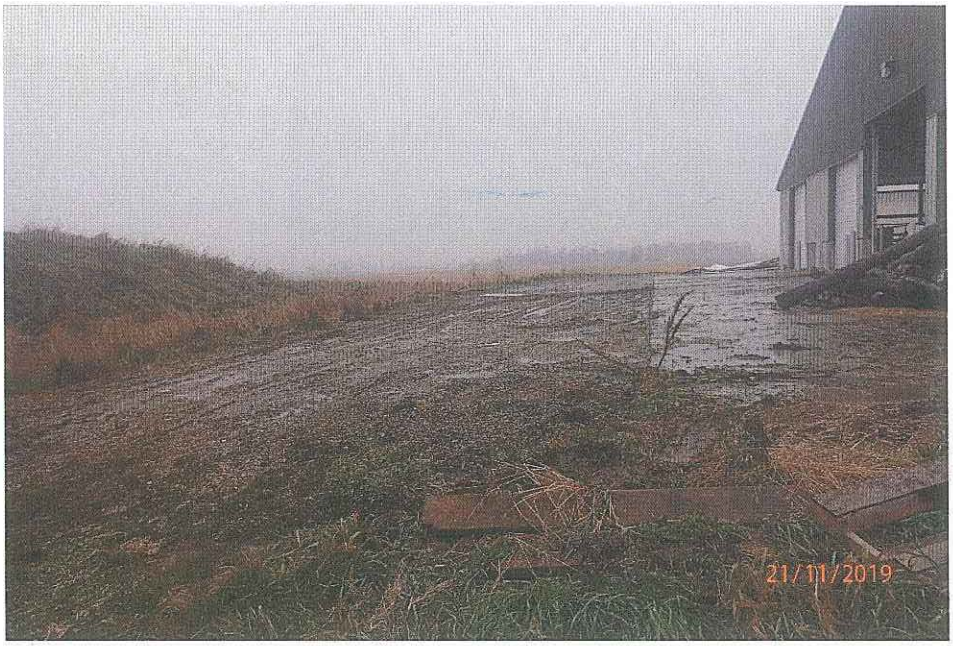



88: PB210050
Description: North side of the Heifer Barn pump and pit.
Location: North of the pump and pit located within the Heifer Barn on the South Site.
Camera Direction: East.
Date: 11/21/2019.


89: PB210051
Description: Crop field north of the Heifer Barn and West of the Small Freestall Barn.
Location: North of the Heifer Barn on the South Site.
Camera Direction: North.
Date: 11/21/2019.


90: PB210052
Description: Inside the Heifer Barn. Track-in and track-out on the apron on the west side of the Heifer Barn.
Location: West side of the Heifer Barn on the South Site.
Camera Direction: East.
Date: 11/21/2019.

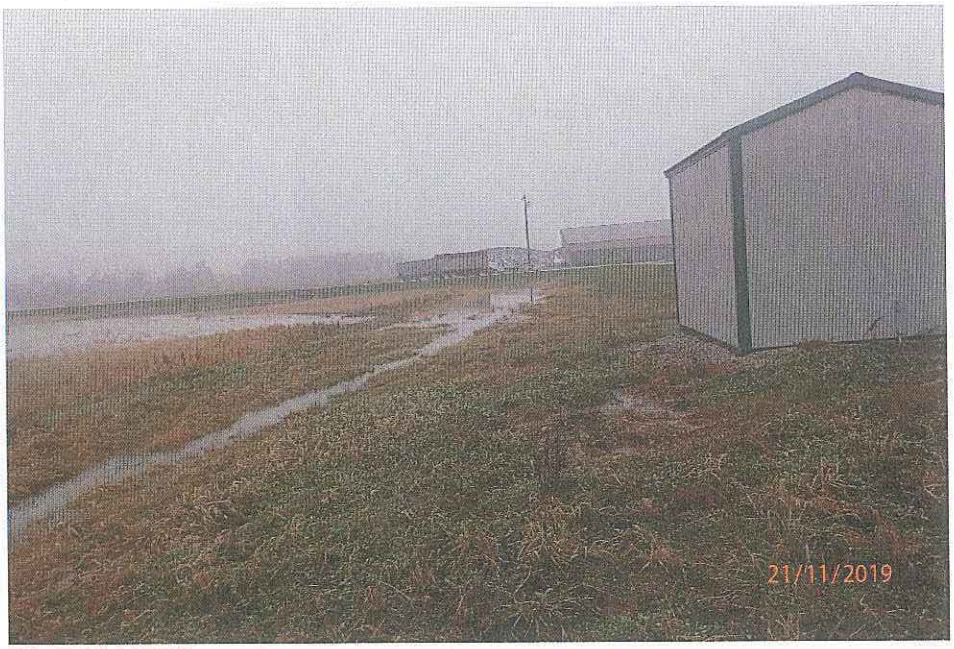

91: PB210053
Description: Track-in/track-out of used feed, manure, and bedding from the Heifer Barn.
Location: West side of the Heifer Barn on the South Site.
Camera Direction: North.
Date: 11/21/2019.




92: PB210054
Description: Track-in/track-out of used feed, manure, and bedding that had come into contact with the stormwater and was flowing off of the concrete apron toward the ditch, west of the Heifer Barn. A berm was on the east side of the ditch which prevented the process wastewater from flowing into the ditch.
Location: West of the Heifer Barn on the South Site.
Camera Direction: North.
Date: 11/21/2019.


93: PB210055
Description: The West Stormwater Ditch that conveys flow by gravity to the north toward Meadowlark Road.
Location: West of the Small Freestall Barn on the South Site.
Camera Direction: North.
Date: 11/21/2019.

94: PB210056
Description: The West Stormwater Ditch that conveys flow by gravity to the north along the west side of the Small Freestall Barn on the South Site.
Location: West of the Small Freestall Barn on the South Site.
Camera Direction: South.
Date: 11/21/2019.




95: PB210057
Description: The West Stormwater Ditch that conveys flow by gravity to the north along the west side of the Small Freestall Barn on the South Site.
Location: West of the Small Freestall Barn on the South Site.
Camera Direction: Northwest.
Date: 11/21/2019.


96: PB210058
Description: The West Stormwater Ditch that conveys flow by gravity to the north along the west side of the Small Freestall Barn on the South Site.
Location: Northwest of the Small Freestall Barn on the South Site.
Camera Direction: Southwest..
Date: 11/21/2019.

# Meadowlark Dairy, LLC

Attachment B

# Meadowlark Dairy, LLC

Attachment B